BAW BAW SHIRE COUNCIL

ELECTRIC LINE CLEARANCE MANAGEMENT PLAN

2025-2026

Version Control

Version	Document date	Distributed
1	29/6/2022	*Rescinded*
2	*30/03/2023*	*Rescinded*
3	*5/04/2024*	*Rescinded*
4	*3/25/2025*	*Current*

Contents

STRUCTURE OF PLAN ---- **6**

DISTRIBUTION BUSINESS ---- **6**

TREE MAINTENANCE CONTRACT ---- **6**

PART 2 SECTION 9 PREPARATION OF A MANAGEMENT PLAN ---- **7**

9(2) ANNUAL Preparation of a Management Plan by 31 March ---- *7*
9(4) Management Plan requirements ---- *8*
9(4)(a) NAME, ADDRESS AND TELEPHONE NUMBER OF THE RESPONSIBLE PERSON ---- 8
9(4)(b) NAME, POSITION, ADDRESS AND TELEPHONE NUMBER OF THE PERSON WHO WAS RESPONSIBLE FOR THE PREPARATION OF THE PLAN ---- 8
9(4)(c) NAME, POSITION, ADDRESS AND TELEPHONE NUMBER OF THEPERSONS WHO ARE RESPONSIBLE FOR CARRYING OUT THE PLAN ---- 8
9(4)(d) THE TELEPHONE NUMBER OF A PERSON WHO CAN BE CONTACTED IN AN EMERGENCY THAT REQUIRES CLEARANCE OF AN ELECTRIC LINE THAT THE RESPONSIBLE PERSON IS REQUIRED TO KEEP CLEAR OF TREES OR PARTS OF TREES ---- 8
9(4)(e) THE OBJECTIVES OF THE PLAN: ---- 9
9(4)(f) THE LAND TO WHICH THE MANAGEMENT PLAN APPLIES TO - MAPS ---- 9
9(4)(g) ANY HAZARDOUS BUSHFIRE RISK AREAS AND LOW BUSHFIRE RISK AREAS IN THE LAND REFERRED TO IN PARAGRAPH (f); ---- 9
9(4)(h) EACH AREA THAT THE RESPONSIBLE PERSON KNOWS CONTAINS A TREE THAT THE RESPONSIBLE PERSON MAY NEED TO CUT OR REMOVE TO ENSURE COMPLIANCE WITH THE CODE AND THAT IS – ---- 10
9(4)(i) DETAILS OF METHODS THAT WILL BE USED TO AVOID AND MINIMISE THE IMPACT ON VEGETATION REFERRED TO IN PARAGRAPH 9(4)(h) ---- 11
9 (4)(j)THE MANAGEMENT PROCEDURES THAT THE RESPONSIBLE PERSON IS REQUIRED TO ADOPT TO ENSURE COMPLIANCE WITH THE CODE ---- 12
9(4)(k) THE PROCEDURES TO BE ADOPTED IF IT IS NOT PRACTICABLE TO COMPLY WITH THE REQUIREMENTS OF AS 4373 WHILE CUTTING A TREE IN ACCORDANCE WITH THE CODE 16
9(4)(l) A DESCRIPTION OF EACH ALTERNATIVE COMPLIANCE MECHANISM IN RESPECT OF WHICH THE RESPONSIBLE PERSON HAS APPLIED, OR PROPOSES TO APPLY, FOR APPROVAL UNDER CLAUSE 31 OF THE CODE. ---- 17
9(4)(m) The details of each approval for an alternative compliance mechanism ---- 17
9(4)(n) A DESCRIPTION OF THE MEASUREMENTS THAT MUST BE USED TO ASSESS THE PERFORMANCE OF THE RESPONSIBLE PERSON UNDER THE MANAGEMENT PLAN ---- 17
9(4)(o) DETAILS OF THE AUDIT PROCESSES THAT MUST BE USED TO DETERMINE THE RESPONSIBLE PERSON'S COMPLIANCE WITH THE CODE ---- 18
9(4)(p) THE QUALIFICATIONS AND EXPERIENCE THAT THE RESPONSIBLE PERSON MUST REQUIRE OF THE PERSONS WHO ARE TO CARRY OUT THE PRUNING OR REMOVAL OF TREES: ---- 19
9(4)(q) NOTIFICATION AND CONSULTATION PROCEDURES ---- 23
9(4)(r) DISPUTE RESOLUTION PROCEDURES. ---- 23

PART 2 – CLEARANCE RESPONSIBILITIES ---- **24**

DIVISION 1 – ROLE OF RESPONSIBLE PERSONS ---- *24*
(1) Exception to minimum clearance space for structural branches around insulated low voltage electric lines ---- *24*
(2) Exception to minimum clearance space for small branches around insulated low voltage electric lines *24*
(3) Exception to minimum clearance space for SMALL branches around uninsulated low voltage electric lines in low bushfire risk areas ---- *24*
(7) Exception to minimum clearance space for structural branches around uninsulated low voltage electric lines in low bushfire risk areas ---- *24*
(8) Owner or operator of transmission line must manage trees around minimum clearance space ---- *25*
(9) Responsible person may cut or remove hazard tree ---- *25*

PART 2 – CLEARANCE RESPONSIBILITIES ---- **26**

DIVISION 2 – MANNER OF CUTTING AND REMOVING TREES ---- *26*
(9) Responsible Person may cut or remove hazard trees ---- *26*
(10) Cutting of tree to comply with Standard ---- *26*
(11) Cutting or removal of indigenous or significant trees must be minimised---- *26*
(12) Cutting or removing habitat for threatened fauna ---- *26*

PART 2 – CLEARANCE RESPONSIBILITIES ---- **26**

DIVISION 3 – NOTIFICATION, CONSULTATION AND DISPUTE RESOLUTION---- *26*
(16) Responsible person must publish notice before cutting or removing certain trees---- *26*

PART 2 – CLEARANCE RESPONSIBILITIES ---- **26**

DIVISION 4 – ADDITIONAL DUTIES OF RESPONSIBLE PERSONS ---- *26*
(20) Duty relating to the safety of cutting or removal of trees close to an electric line ---- *26*

PART 3 – MINIMUM CLEARANCE SPACES---- **27**

DIVISION 2 - ALTERNATIVE COMPLIANCE MECHANISMS---- *27*
(31) Application for approval of alternative compliance mechanism ---- *27*
(32) Formal safety assessment of alternative compliance mechanism ---- *27*

APPENDIX 1: Declared Area Map – Warragul (1 of 2) ---- **28**

APPENDIX 1: Declared Area Map – Drouin (2 of 2) ---- **29**

APPENDIX 2: Map of Bushfire Risk areas within the Declared Area and pruning zones- Warragul (1 of 2) ---- **30**

APPENDIX 2: Map of Bushfire Risk areas within the Declared Area and pruning zones - Drouin (2 of 2)31

APPENDIX 3: Sample Inspection Audit Form---- **32**

APPENDIX 4: Public Notice of Upcoming Electric Line Clearance Works---- **33**

APPENDIX 4: Notice of Cutting or Removal of Tree from unexpected regrowth or other reasons as per Clause 17 (2) (a), (b) and Clause 3 (a),(b),(c) of Electricity Safety (Electric Line Clearance) Regulations 2020 ---- **34**

APPENDIX 5: Register of Significant Trees Impacted by Powerlines and Baw Baw Shire Council Tree List ---- **35**

Register of Significant Trees Impacted by Powerlines---- **35**

Baw Baw Shire Council Tree List ---- **36**

APPENDIX 6: Applicable distance for middle 2 thirds of electric line span ---- **45**

Plan and section view of Clearance Spaces for all areas per Electricity Safety (Electric Line Clearance) Regulations 2020---- *51*

Disclaimer:

This Electric Line Clearance Management Plan (Plan) has been developed by the Baw Baw Shire Council (Council) to inform the Council, Energy Distribution Businesses (DB's) and all other interested parties about the vegetation management processes and strategies undertaken by the Council to care for its trees that are in the vicinity of electricity assets. This Plan is to satisfy the requirements of the *Electricity Safety (Electric Line Clearance) Regulations 2020* (Vic).

Council notifies users of this Plan that some of the content/statements made in this Plan are based on assumptions, estimates, predictions and projections made as part of its management planning/development process and some of the content/statements are based on actions that the Council intends to take in the future. Council may decide to take different actions to those it currently intends to take if circumstances change or assumptions and estimates prove to be inaccurate and events do not occur as predicted or projected. The users of this Plan accept responsibility and all risk for using material in section 9 of this document. The users should seek expert advice in relation to their own circumstances and must rely solely on their own judgement and expert advice obtained.

Council does not guarantee and will not be liable for, whether in contract, tort (including negligence), equity or otherwise, to compensate or indemnify any person for any loss, injury or damage arising directly or indirectly from any person using, or relying on any content/statements in this Plan.

STRUCTURE OF PLAN

This Plan has been structured to align with the relevant clauses of the Electricity Safety (Electric Line Clearance) Regulations 2020 Victoria (Regulations).

The corresponding section of the Plan is numbered identically to the section of the Regulations to allow for cross referencing.

DISTRIBUTION BUSINESS

The names and contact details for the Distribution Business that operate within the Baw Baw Shire Council are:

Organisation Name:	AusNet Services
Contact name:	Michael Cullen
Position:	Area Manager
Address:	Stratton Drive, Traralgon
Contact Number:	1300 360 795

TREE MAINTENANCE CONTRACT

Tree assessment, pruning and removal is undertaken by approved contractors under the following contract:

- Contract Tender 2022016 Provision for Street Tree Maintenance Services

This is referred to in this Plan as the Contract.

PART 2 SECTION 9 PREPARATION OF A MANAGEMENT PLAN

9(2) ANNUAL PREPARATION OF A MANAGEMENT PLAN BY 31 MARCH

Baw Baw Shire Council is a Responsible Person required to prepare an Electric Line Clearance Management Plan for the purpose of the Regulations. This document is prepared in accordance with Section 9 of the Regulations.

The document has been prepared consistent with the Council Plan 2021 – 2025 and Environmental Sustainability Policy that articulate one of Council's strategic objectives as "A Healthy Community", with the community vision and goals relating to this as "Healthy and well people, living in safe, connected and healthy environments."

The implementation and review of the Plan is part of Council's strategic reporting framework (CAMMS) and is reported within the Infrastructure Maintenance Business Unit's monthly report.

- When the new annual Plan is completed, Council will upload the Plan to the website and at the same time, remove the superseded Plan;
- A review of the Plan will also be implemented should there be a change of Contractor or Contract methodology;
- The amended Plan and the requirement to comply with the Plan will be brought to the attention of Council's contractors annually, at the monthly contract meeting following the review; and
- The amended Plan and the requirement to comply with the Plan will be brought to the attention of relevant Council personnel following each annual review.

Council reviews its Plan annually and prepares a new or amended plan as required by 31 March of each year. The Plan is stored in Council's document management system and will be available on Council's website, www.bawbawshire.vic.gov.au, from this date each year.

As part of the above annual review, Council will ensure that all specific policies relevant documents, personnel documentation, training, program and resourcing requirements are reviewed and updated as required to ensure compliance with the Regulations.

No exemptions are in operation and therefore none are required to be displayed.

Council reviews the Electric Line Clearance Management Plan prior to the 31 March deadline each year to confirm compliance requirements and the status of the Plan's implementation. Such reviews will be recorded and reported to Council's Authorising Officer.

9(4) MANAGEMENT PLAN REQUIREMENTS

9(4)(a) NAME, ADDRESS AND TELEPHONE NUMBER OF THE RESPONSIBLE PERSON:

Name: Mr John Bennie, Interim CEO, Baw Baw Shire Council

Address: 33 Young Street, Drouin, PO Box 304, 3820

Telephone Number: 1300 229 229

The CEO is Council's principle representative in its role as a Responsible Person under the Electricity Safety Act 1998.

9(4)(b) NAME, POSITION, ADDRESS AND TELEPHONE NUMBER OF THE PERSON WHO WAS RESPONSIBLE FOR THE PREPARATION OF THE PLAN:

Name: Dan Hammond

Position: Manager Infrastructure Maintenance

Address: 188 Normanby Street, Warragul, PO Box 304, 3820

Telephone Number: 1300 229 229

9(4)(c) NAME, POSITION, ADDRESS AND TELEPHONE NUMBER OF THEPERSONS WHO ARE RESPONSIBLE FOR CARRYING OUT THE PLAN:

Name: Kyle Tecklenburg

Position: Coordinator Tree Maintenance

Address: 188 Normanby Street, Warragul, PO Box 304, 3820

Telephone Number: 1300 229 229

9(4)(d) THE TELEPHONE NUMBER OF A PERSON WHO CAN BE CONTACTED IN AN EMERGENCY THAT REQUIRES CLEARANCE OF AN ELECTRIC LINE THAT THE RESPONSIBLE PERSON IS REQUIRED TO KEEP CLEAR OF TREES OR PARTS OF TREES.

Emergency After Hours Number: 1300 229 229

9(4)(e) THE OBJECTIVES OF THE PLAN:

The following are identified as the key objectives of this Plan:

- To ensure public safety at all times in relation to fire risk, human injury and continuity of supply resulting from the contact between power lines and vegetation.
- Where reasonably practicable and within their level of competence, Council employees and contractors will aim to ensure Electricity Safety.
- To achieve compliance with the Electricity Safety Act 1998 and the Electricity Safety (Electric Line Clearance) Regulations 2020 and the incorporated Code of Practice.
- To maintain the health and amenity of the community's trees by applying appropriate standards and practices. Where practicable, within the limitations imposed by the Regulations, our tree management will be best industry practice.
- In the unlikely event that compliance cannot be readily achieved by pruning, Council will implement a documented process of 6-monthly inspections on these trees while developing an alternative engineering solution in conjunction with the Distribution Business.
- To ensure protection of areas of important local and significant vegetation throughout Council's Declared Area. This protection includes, but is not limited to, sites containing botanically, historically or culturally important vegetation, or vegetation of outstanding aesthetic or ecological significance, and/or the habitat of rare or endangered species.
- Establishing an open dialogue with relevant distribution company(s) vegetation management group to ensure both parties have a clear understanding of each other's priorities. This will be achieved through an annual meeting with relevant distribution company(s) managers and Council's responsible employee.
- To ensure provision of a safe working place for employees and contractors undertaking vegetation clearance pruning and any employee or contractors who conduct other maintenance vegetation works within the vicinity of powerlines.
- To ensure community satisfaction with the manner in which the necessary works are carried out.

Compliance with these objectives is measured by an ongoing process of auditing and Contract performance monitoring as detailed in section 9(4)(n) of this Plan.

9(4)(f) THE LAND TO WHICH THE MANAGEMENT PLAN APPLIES TO - MAPS

The land to which this Plan applies is the Declared Areas of Warragul and Drouin, and is shown in the maps included in Appendix 1.

Council currently manages approximately 30,000 urban street trees. The trees that Council manages are located in road reserve, parklands and other land/property managed by Council. Approximately 5,000 trees are estimated to be impacted by electric lines inside the Declared Area.

9(4)(g) ANY HAZARDOUS BUSHFIRE RISK AREAS AND LOW BUSHFIRE RISK AREAS IN THE LAND REFERRED TO IN PARAGRAPH (f);

The majority of the Declared Area managed by Council is rated Low Bushfire Risk Area (LBRA) based on the County Fire Authority (CFA) Fire Hazard Ratings. Maps indicating the extent of LBRA within the Declared Area are included in Appendix 2.

Low Bushfire Risk Areas (LBRA) and Hazardous Bushfire Risk Areas (HBRA) refer to fire risk mapping maintained by the CFA. Council monitors the Victorian Fire Risk Register through consultation with the Municipal Fire Reference Group, which report to the Municipal Emergency Management Planning Committee.

The information discussed forms part of the annual review of the Municipal Fire Management planning process and informs the Municipal Emergency Management Plan (MEMP) which is available on Council's website www.bawbawshire.vic.gov.au.

9(4)(h) EACH AREA THAT THE RESPONSIBLE PERSON KNOWS CONTAINS A TREE THAT THE RESPONSIBLE PERSON MAY NEED TO CUT OR REMOVE TO ENSURE COMPLIANCE WITH THE CODE AND THAT IS –

(i) Indigenous to Victoria

For the purposes of this Plan, indigenous vegetation means species locally indigenous to the Council area and does not include commercial and ornamental Australian native species, which are commonly planted as street trees, even where those species may be indigenous to other parts of Victoria.

Council's Declared Area consists of mixed local native species, commercial native varieties and introduced species. Areas of historical, cultural, environmental, ecological and aesthetical importance have been identified throughout the municipality and included as Heritage and Environmental Significance Overlays in Council's Planning Scheme.

There are no known trees of habitat significance for rare or endangered species listed in Council's Declared Area within the vicinity of powerlines that require pruning or clearing to ensure compliance with the Code of Practice.

As there has been a long-term and ongoing powerline clearance program around existing trees, there are no known indigenous trees that will be adversely affected by future works.

Additional resources available to identify significant native trees are -

a. Reference to the Heritage Register as per the meaning of the Heritage Act 1995 http://vhd.heritagecouncil.vic.gov.au/

b. Reference to the National Trust Register and regular communication with the Local History Officer http://trusttrees.org.au/

c. Reference to the Threatened Species Advisory Lists as published by the relevant State department https://www.environment.vic.gov.au/conserving-threatened-species/threatened-species-advisory-lists

Any Declared Area adjustments will trigger an analysis of indigenous vegetation that may be impacted by management of vegetation to comply with this Plan. Generally, these will be captured in February each year as part of the annual review of this Plan.

No additional trees of significance have been identified since the previous Plan published in 2021.

The person responsible for the preparation of the Plan regularly liaises with Council's Environmental Planning Team on changes to native vegetation mapping, controls and other relevant matters. The amended Plan and any changes as a result of this briefing will be raised with Council's contractors during contract meetings.

(ii) Listed in planning scheme to be of ecological, historical or aesthetic significance

Based on the historical annual line clearance program, no trees of significance have been identified in the Declared Area that will be adversely affected by electric line clearance.

All Heritage, Environmental Significance and Vegetation Protection overlays affecting the Declared Area are subject to exemptions. Exemptions apply for any action which is necessary to:

- Keep the whole or any part of a tree clear of an electric line, provided the action is carried out in accordance with a code of practice prepared under Section 86 of the Electricity Safety Act 1998; and
- Remove or lop a tree if the tree presents an immediate risk of personal injury or damage to property.

Council employees and contractors involved in powerline clearance works are inducted into the importance of these areas of significance and the maps are provided for their reference.

This Plan will be amended subsequent to changes to these exemption provisions.

(iii) Trees of cultural or environmental significance

Trees of Cultural or Environmental Significance for the purposes of the Plan are defined as any tree protected as Significant or Heritage by relevant State legislation or local planning controls. Based on the historical annual line clearance program, there are no identified areas of special or cultural vegetation identified in the Declared Area that will be affected by electric line clearance.

Council has compiled a document containing a list of trees Council considers significant within the municipality. The Baw Baw Significant Tree Register is a collection of trees that fit within one or more of the following criteria at a significant level: historical, cultural, botanical, ecological, rare, and endangered and/or remnant indigenous vegetation. The list includes individual trees and groups of trees. Council has developed an interactive map showing the location of the trees on the register that are located within the township of Drouin. The interactive map is accessible from the Baw Baw Shire Council website www.bawbawshire.vic.gov.au.

Currently there are Significant trees that require pruning to comply with the Code. Known trees and groups of Significant trees affected by powerline clearance activities are listed in Appendix 5.

By their nature, these types of vegetation do not change quickly in normal circumstances. Council will review the Planning Scheme and consult with Council's Planning Department to identify any changes in State controls when this Plan is revised. The amended Plan and any changes as a result of this briefing will be raised with Council's contractors at the monthly contract meetings.

No additional trees of significance have been identified since the previous Plan in 2023.

9(4)(i) DETAILS OF METHODS THAT WILL BE USED TO AVOID AND MINIMISE THE IMPACT ON VEGETATION REFERRED TO IN PARAGRAPH 9(4)(h)

As there has been an ongoing powerline clearance program around existing trees, there are no known trees from clause 9(4)(h) that will be significantly adversely affected by future powerline clearance works.

There are no known trees of habitat significance for rare or endangered species listed in Council's Declared Areas within the vicinity of electric lines that require pruning or clearing to ensure compliance with the Code of Practice. The presence of any previously unidentified tree of significance will be reviewed as part of the annual review of this Plan using the processes and resources outlined in 9(4)(h).

If a specimen of high value, or a tree with or likely to contain habitat hollows, is identified by Council or its Contractors as being non-compliant, the tree will be individually assessed to ensure that pruning is minimised and the environmental value of the tree is preserved. This may include managing the tree in line with Clauses 4, 5 or 6 of the Code, on an increased inspection or pruning cycle. If any are identified in the future, they will be plotted on Council's mapping system and monitored to ensure that minimal impact is made in the event of works being required.

If Council intends to cut or, on the advice of a suitably qualified arborist, remove a tree that has been identified in 9(4)(h) as known habitat for fauna listed as –

a) threatened in accordance with section 10 of the Flora and Fauna Guarantee Act 1988; or
b) listed in the Threatened Species Advisory Lists with a conservation status in Victoria of "vulnerable", "endangered" or "critically endangered"

Council will undertake cutting or removal of the tree outside of the breeding season for that species. Where it is not practicable to undertake cutting or removal of the tree outside of the breeding season for that species, translocation of the fauna will be undertaken wherever practicable.

All pruning will take place in accordance with industry best practice and where practicable, pruning may be undertaken using Elevated Work Platforms (EWPs) or other similar methods to minimise overall site damage. Council

will as far as reasonably practicable, restrict cutting or removal of native trees or of cultural or environmental significance to the minimum extent necessary to ensure compliance with the requirements of the Code, the schedule to the Code or to make an unsafe situation safe.

In exceptional circumstances, fauna may be required to be relocated. This is not Council's preferred option and will be used only as a last resort, for example, if the tree is assessed to be a hazard tree.

All records will be filed in Council's document management system and kept for a minimum of 5 years.

9 (4)(j)THE MANAGEMENT PROCEDURES THAT THE RESPONSIBLE PERSON IS REQUIRED TO ADOPT TO ENSURE COMPLIANCE WITH THE CODE

(i) *Include details of the methods to be adopted for managing trees and maintaining a minimum clearance space as required by the Code:*

1) Identification of Work Required

Council's Declared Area Maps for Warragul and Drouin identify areas where electric line clearance works are required. Council carries out annual inspections and pruning of all trees within the Declared Areas under electric lines as part of its Contract. The pruning cycle is determined by Council's Supervisor and Coordinator Tree Maintenance, from previous experience and from observing the rate of growth of species under the prevailing growing conditions at various locations. The pruning cycle can vary due to unseasonable weather conditions: for example; higher rainfall, warmer weather, longer growing seasons.

Table 1 (below) shows the pruning schedule of works. The table is incorporated within the Contract.
Zone 1, Zone 2, Zone 3 Declared Areas. (Maps in Appendix 2).

Table 1

Schedule of Works	Timeline
Pre-commencement Meeting	May-June 2025
Pruning Works Conducted	July to November 2025
HBRA and Regrowth Audit	December 2025

The contract specifies that Contractor/s are required to complete inspection and pruning of trees in Zones 1, 2 and 3 annually. All vegetation within the designated zones for each financial year is expected to meet Code prior to 1 December of that year.

This annual program ensures that tree amenity is considered, trees are regularly assessed, and clearance spaces are maintained.

Trees that the assessor believes cannot be successfully pruned in accordance with the Electricity Safety (Electric Line Clearance) Regulations 2020 will be brought to the attention of Council. Council's Supervisor Arborist will then inspect the tree and if they believe the tree cannot be pruned to comply with the Code, Council will investigate and implement an alternative method to ensure safety and continuity of supply.

The assessor/Contractor will also assess:

- The voltage and length of the span to determine the correct Applicable Distance for clearance for the middle 2/3 of each span;
- The species of the vegetation to ascertain the regrowth potential; and
- The tree for any other potential hazards.

In addition, any trees that are determined to be likely to breach the Code within the inspection cycle are also to be identified. This inspection also includes the identification of any hazards outside the clearance and regrowth spaces that may require assessment or correction.

The Contractor provides hard copy records of the trees pruned as part of the clearance program. These records are stored in Council's document management system.

Hazardous trees identified during these routine inspections are programmed for pruning or removal and prioritised according to their hazard potential.

Emergency or reactive works are recorded and closed out in the relevant system utilised by Council (Customer Relationship Management) once completed.

Reports of non-compliance from relevant distribution company(s), residents or other sources will be investigated by a suitably qualified Council employee or contractor. Once the investigation has been completed, a Contractor will carry out any pruning action to rectify a confirmed non-compliance.

Where necessary, Council's Leading Hand/Supervisor Arborist will liaise with the Contractor to determine the cause of the non-compliance. Where the non-compliance is a failure to follow the Contract specification, this will be documented as a contract non-conformance in the monthly Contract meeting. Where the non-compliance is caused by unanticipated regrowth, the species and growing conditions will be identified to determine if this is likely to occur again, or with other trees in the vicinity of powerlines. Appropriate inspection regimes will be implemented to address any identified issues.

Consultation is regularly undertaken with the distribution business representative shown on page 5 to maintain open communication and discuss clearance issues regarding the following:

- Prior to scheduled works near low and high voltage lines;
- Requesting of assistance for suppressions and shutdowns;
- Clarification of declared area responsibilities;
- Changes to regulations;
- Urgent or non-compliant works;
- Prior to the completion of each ELCMP; and
- Any other operational issues as they arise.

2) Hazard Trees

The Electricity Safety Act 1998 (Victoria) Section 86B provides that a Municipal Council must specify, within its Municipal Fire Management Plan (MFMP):

(a) procedures and criteria for the identification of trees that are likely to fall onto, or come into contact with, an electric line (hazard trees); and

(b) procedures for the notification of responsible persons of trees that are hazard trees in relation to electric lines for which they are responsible.

Council's Municipal Fire Management Plan (MFMP) refers to this Electric Line Clearance Management Plan in relation to Hazard trees.

During the inspection of identified Declared Areas, the Assessor will also inspect areas adjacent to the clearance space or regrowth space for trees that could become a hazard to the lines under adverse weather conditions.

Note: For the purpose of this Plan, a hazard tree is a tree that possesses hazardous faults which, if not actioned, will negatively impact distribution assets. These trees may possess characteristics such as large cavities, severe decay, major cracks etc.

In a situation where a tree is identified that is likely to fall onto or otherwise come into contact with electric lines, Council will assess the tree using an arborist qualified to undertake the role as per the description in section 9(4)(p) herein.

In situations where an arborist's assessment confirms the likelihood of contact with the electric line having regard to foreseeable local conditions including weather and ground instability, Council will remove or cut the hazard tree as per the Code. In the event of a hazard tree being identified as a culturally significant, environmentally significant or habitat tree, Council will, where possible, minimise the impact on the tree or fauna as previously outlined, to ensure compliance with the requirements of the code, the schedule to the code or to make an unsafe situation safe.

3) Assessment of Regrowth Space

As part of the inspection of the Declared Area, the amount of clearance achieved during pruning is assessed to determine its suitability to the required clearance. Analysis of the clearance achieved is assessed in conjunction with such factors as species and soil type and rainfall rates to provide additional information on the adequacy of clearing cycles and clearances.

The responsible person assessing the vegetation will be a suitably qualified arborist as per the description in section 9(4)(p) herein.

The assessor will observe the amount of regrowth for each species pruned and use this information when defining pruning frequencies required to achieve compliance with the Code. Consideration will also be given to the voltage, span length, relevant pruning cycle, and the significance of each tree proposed to be pruned.

Subject to the significance of the tree, tree pruning frequencies may be adjusted to accommodate observed growth rates and achieve compliance with the Code.
The priorities and estimated interval of these regrowth pruning works (if required) are based on the species, size, and growth rate of trees and the location of the tree and electric lines. Identified tree species that may require regrowth pruning maintenance include:

- *Fraxinus species*
- *Liquidambar styraciflua*
- *Lophostemon confertus*
- *Platanus species*
- *Melaleuca species*
- *Quercus palustris*
- *Eucalyptus species*
- *Corymbia species*

The formula used to calculate the amount of vegetation to be removed is:

- *Clearance (m) = regrowth (m/year) X cycle (1 or 2 years)*

Examples of this formula include:

- *Melaleuca linariifolia:*
  - *regrowth 30cm per annum X 1 year = 30cm clear of the Clearance Space*
- *Quercus palustris*
  - *regrowth 80cm per annum X 1 year = 80cm clear of the Clearance Space*
- *Fraxinus sp.*
  - *regrowth 120cm per annum X 1 year = 120cm clear of the Clearance Space*

4) Pruning to maintain the Clearance Space

The Contractor will implement the pruning schedule (Table 1) to clear trees identified as being in, or likely to grow into, the Clearance Space as identified.

Records of each pruning undertaken on each tree are recorded on the hard copy report, which is scanned and stored in Council's electronic document management system.

Hazardous trees identified during these routine inspections are programmed for pruning or removal and prioritised according to their hazard potential.

Emergency or reactive works are recorded and closed out in Council's Customer Relationship Management system once completed.

All pruning works will be undertaken in accordance with industry best practice methods. The pruning requirements of each tree will be assessed and recorded during the initial inspection. The regrowth space required beyond the

minimum recommended clearance space detailed within the Code will be forecast in accordance with species type, local conditions and pruning frequency and process outlined in (9)(4)(j)(i)(3) above.

Contractors and other staff working on behalf of Council shall at all times comply with the safe approach distances contained in the Electricity Safety (General) Regulations 2019. Council acknowledges its role of supervising staff and contractors to ensure that work is performed safely and consistently with the Regulations.

In the event that the safe approach distances cannot be maintained at any time, work shall cease immediately and advice from the relevant power authority will be sought. This may involve shutdown or the use of live line workers with suppression of the auto reclose system.

As part of its normal contract reporting, Council will ensure that the Contractor has appropriately trained and inducted its employees into these requirements.

5) Alternative methods that may be adopted to maintain the clearance space

In the unlikely event that compliance cannot be readily achieved by pruning, Council will implement a documented process of 6-monthly risk assessments on these trees while developing an alternative engineering solution in conjunction with the Distribution Business.

Council's long-term strategy is to reduce vegetation encroaching into the clearance space on all electric lines. Council is progressively removing trees under electric lines that are performing poorly and/or are inappropriate and replacing them with more appropriate trees that should not need to be cleared as frequently from electrical infrastructure.

All tree planting programs undertaken by Baw Baw Shire Council will recognise the inherent problems with the planting of vegetation in the vicinity of power lines. When selecting trees for planting beneath overhead services, tree selection will generally be made from Baw Baw Shire Council's Tree List. A copy of the list is shown in Appendix 5. By employing this strategic approach Council will minimise the amount of pruning required to maintain clearances in future years.

The following alternative methods may be adopted for maintaining:

- Reduced pruning cycle
- Application of an Exception
- Removal and replacement with a suitable species
- Use of Aerial Bundled Cable or covered conductors
- Powerlines to be re-routed
- Undergrounding of powerlines
- Other engineering solutions

Council may undertake a cost benefit analysis on a case-by-case basis where vegetation significance or public need dictates an alternative course should be pursued.

Where a significant tree is to be severely affected, or an affected person objects to the pruning or clearing of vegetation near powerlines, Council Officers will consult with the affected person to determine whether suitable alternative management is practical. Where an affected person requests the relocation or provision of alternate services such as aerial bundle conductor, Council will consult with the Distribution Business to determine the viability of such an approach.

(ii) Specify the method for determining an additional distance that allows for cable sag and sway

Council will maintain minimum clearances in compliance with the distances in the clearance graphs in Schedule 2 of the Code. Council will refer to graphs 1, 2, 3 and 4 of Schedule 2 of the Regulations for LBRA and graphs 5 and 6 for HBRA to confirm requirements. Refer to Appendix 6 for the graphs.

In the Declared Area, long spans (i.e. those over 100m in length in the LBRA) will require additional allowance for sag and sway. The number of spans affected is likely to be minimal. Council will contact the Distribution Business to determine the location of and minimum clearances required (including the additional allowance for sag and sway)

for any spans greater than 100m in length within LBRA, and greater than 45m in length in HBRA. A list of these spans will be obtained, recorded in a permanent register maintained in Council's electronic document management system, mapped in Council's GIS system, and made available to all relevant personnel and contractors.

Council notes that under Division 4 (21) of the Regulations, an owner, operator or distribution company that is consulted by a Council must assist the Council by determining the additional distance. Where the DB does not provide the required assistance, Council will liaise with ESV to resolve the issue.

9(4)(k) THE PROCEDURES TO BE ADOPTED IF IT IS NOT PRACTICABLE TO COMPLY WITH THE REQUIREMENTS OF AS 4373 WHILE CUTTING A TREE IN ACCORDANCE WITH THE CODE.

Compliance with AS4373-2007 *Pruning of amenity trees* (AS4373) requires observation of several factors when undertaking pruning. These factors include:

- Formative pruning of young trees
    - This is a critical requirement for trees under powerlines to develop canopy shapes that can be managed for Compliance when the tree matures.
- The amount and distribution of canopy removed
    - This is dictated by the Compliance requirements
    - The amount of canopy removed shall be the least amount required to achieve and maintain compliance, or to manage the tree in line with Clause 9(4)(i) and (j) of this Plan and the canopy will be shaped to create a weight and canopy distribution as close to normal as possible.
- The size of the limb to which the pruning cut is made.
- The angle of the final pruning cut.

The current version, AS4373-2007, was reconfirmed by Standards Australia in 2019.

Council acknowledges that compliance with AS4373, especially in relation to the final pruning cut, cannot always be achieved while maintaining body clearances from the conductors. Council requires that compliance with AS4373 be achieved whenever reasonably practicable while also ensuring:

- Safe approach distances are maintained;
- A safe work environment when working at heights;
- Minimum clearance is achieved; and/or
- An affordable level of productivity.

In order to achieve pruning of acceptable quality, all pruning personnel, either Council employees or contractors, must have the following as a minimum:

- Formal training as outlined in 9(4)(p) that incorporates modern tree pruning practices, including awareness and understanding of AS4373, and natural target pruning principles; and
- Project induction including awareness training in the Code of Practice and this Management Plan.

As part of Council's normal contract management processes, pruning quality will be assessed by Council's Leading Hand/Supervisor Arborist and poor performance will be identified based on the standards in 9(4)(o). Normal contract management processes will be used to address poor performance, including contract meetings, increased compliance audits, remedial training and, where necessary, application of contract non-conformance penalties.

Under the Contract, all works must meet the specifications. The specifications states that if the maintenance of a tree cannot meet AS 4373 the Contractor is required to refer the tree to Council's Leading Hand/Supervisor Arborist for follow up inspection and to recommend action. The contract also specifies that only appropriate equipment is to be used to undertake the requested tree maintenance. These requirements are also reiterated during the Contractor's commencement of works meeting prior to beginning works.

Should non-compliance to AS4373 be identified on multiple occasions without reasonable justification, contractors will be requested to provide evidence of refresher training and/or demonstrate an understanding by all staff of AS4373. Further non-compliance could potentially result in the loss of the contract.

If compliance of AS4373 is unable to be achieved the following solutions will be investigated.

Short-term:

- Request for assistance from DB, including one or more of the following;

- A suppression,
- Shut-down, or
- Live-line resources to complete clearance.
- Increased inspection and pruning cycles,
- Tree removal and replacement with a more suitable alternative,
- Tree removal with no replacement.

Long-term:

- Investigation into conversion of open wire to Aerial Bundle Cable (ABC), or
- Request to DB for alternative cross-arm configurations, or
- Request to DB for underground cabling, or
- Request to DB for another innovative, appropriate, alternative technical solution.

9(4)(l) A DESCRIPTION OF EACH ALTERNATIVE COMPLIANCE MECHANISM IN RESPECT OF WHICH THE RESPONSIBLE PERSON HAS APPLIED, OR PROPOSES TO APPLY, FOR APPROVAL UNDER CLAUSE 31 OF THE CODE.

Council does not intend to apply for any alternative compliance mechanisms at the time of preparation of this Plan.

9(4)(m) The details of each approval for an alternative compliance mechanism

(i) that the Responsible Person holds:

Council does not hold approval or intend to apply for any alternative compliance mechanisms at the time of preparation of this Plan.

(ii) that is in effect

Council has no alternative compliance mechanisms in effect at the time of preparation of this Plan.

9(4)(n) A DESCRIPTION OF THE MEASUREMENTS THAT MUST BE USED TO ASSESS THE PERFORMANCE OF THE RESPONSIBLE PERSON UNDER THE MANAGEMENT PLAN:

The following criteria will be used to assess Council's performance under this Plan:

Criteria	Measurement method	KPI
Completion of the inspection and pruning program according to the schedule.	• Audit inspections and works ensuring timelines are met. • Contract compliance records	• 100% on-time completion of program prior to 1 December each year.
A reduction in the code clearance breaches identified through the inspection program.	• Audit external breaches reported by the Distribution Business (DB) and Energy Safe Victoria (ESV).	• Maintain compliance of the Code of Practice Clearances.
Safety of public and workers.	• Incident reports & Contractor monthly reports	• A reduction in incidents against previous years data.
Compliance with the Electricity Safety (Electric Line Clearance) Regulations 2020.	• Monitor results from work audit breaches and the breaches reported by the DB.	• 100% Compliance.
Protect areas of important vegetation such as botanically, historically or culturally important or significant vegetation.	• Monitor reports of any affected issues in relation to important vegetation.	• A reduction in relevant issues against previous years' data.
Manage vegetation to maximise the amenity value of Baw Baw Shire Council (BBSC) trees.	• Monitor public complaints regarding tree aesthetics. Monitor 'Customer Request Management' systems with	• No year-on-year increase in complaints received.

	electric line clearance related customer requests.	
Minimise the danger of electrocution and electric lines causing fires.	• Monitor reports of Electric Line Clearance related incidents, including Worksafe cautions and weekly publicised incidents.	• Zero electrocutions and/or fires started from BBSC managed vegetation.
Maintain continuity of the power supply	• Adhering to BBSC inspection pruning schedules. • Monitor reports of power outages caused by BBSC managed vegetation by DB.	• 100% completion of Council's proactive street tree maintenance program.
Provide the community with adequate notification of vegetation works required throughout the municipality.	• Monitor public complaints regarding tree notification issues.	• Proactive works: Confirm annual media releases informing the broader community of the Electric Line Clearance works are programmed. • Reactive works: letter drop notification of Electric Line Clearance works to affected residents.

The Contractor's supervisory personnel responsible for implementing the relevant sections of the Plan are advised of the performance standards under the Plan at the annual briefing following the Plan review. Adherence to these performance standards is also reviewed at each monthly contract meeting.

9(4)(o) DETAILS OF THE AUDIT PROCESSES THAT MUST BE USED TO DETERMINE THE RESPONSIBLE PERSON'S COMPLIANCE WITH THE CODE:

The audit processes used to determine compliance with the Code will be carried out by nominated Council employees supervising the Contract. Therefore, Council's compliance with this part of the Plan is dependent on the performance of Council's street tree maintenance contractor.

The Council shall inspect the work carried out by the Contractor throughout the period that active pruning is taking place. A record of these inspections shall be kept, citing any evidence of sub-standard pruning practice and filed within Council's document management system as per the Code.

During tree maintenance operations, audits are carried out to ensure electric line pruning works are compliant with the Code of Practice. Council's Leading Hand/Supervisor Arborist is required to undertake regular audits using the Electric Line Work Inspection Audit Checklist. The audit results are then reported to the Contractors.

The audit criteria include:

- Time, date & location.
- Work quality.
- Checking that vegetation clearance is compliant with the Code.
- Personnel are adequately qualified and competent.
- Checking that appropriate Traffic Management is utilised.
- Recommending remedial action to be taken where non-compliance is identified.

Refer to Appendix 3 : Electric Line Work Inspection Audit Checklist for a sample of the audit form used.

Council's Leading Hand/Supervisor Arborist undertakes visual inspections of the entire LBRA following pruning works. The inspections identify any trees, which are in breach of the Code, including trees which may breach the clearance space in the subsequent 12 months. An assessment is made regarding regrowth pruning as per the sequence listed in section (9)(4)(j)(i)(4) herein.

Council's Leading Hand/Supervisor Arborist also undertakes annual visual inspections of the entire HBRA situated within the Declared Areas prior to the Declared Fire Danger Period. To ensure this inspection is completed a

reminder will be placed within the responsible persons Microsoft Outlook calendar schedule and is also a Key Performance Indicator in Council's Quarterly Performance Management Reporting System (Interplan/CAMMS).

Follow up tree maintenance works identified by these inspections are incorporated in reactive tree maintenance programs. The works are classified as 'Critical' or 'Non-compliance'. Critical signifies any tree that is growing through or touching high voltage lines. Non-compliance indicates trees that are within clearance zones on low voltage lines, whether touching or not. Remedial pruning works are carried out within the following time frames either by Council or its contractor:

- Critical works will be carried out within five working days; and
- Non-compliance works will be carried out within four weeks.

In the event that the Council's Tree Maintenance teams are not able to complete these works within the specified time frame, the Leading Hand/Supervisor Arborist will, subject to available resources and competing priorities, arrange for an approved Contractor to carry out the works within the time frames.

Each inspection will be documented and record the non-conformities and the date that the critical or non-compliance works have been completed.

Where assistance is required by others such as the distribution business, a consultation process shall be used to assist in attending to the non-compliance as soon as possible.

Record keeping

All records will be stored in Council's document management system. The Contractor will keep all records in accordance with the terms and conditions clearly set out in the contractual agreement.

9(4)(p) THE QUALIFICATIONS AND EXPERIENCE THAT THE RESPONSIBLE PERSON MUST REQUIRE OF THE PERSONS WHO ARE TO CARRY OUT THE PRUNING OR REMOVAL OF TREES:

Council shall ensure that all trees are pruned according to industry best practice as a minimum standard. They shall further ensure that all contractors and employees are appropriately qualified and trained and are holding appropriate certificates for both themselves and their equipment that legally entitles them to undertake the work. A record of the sighting of these documents shall be kept by Council and shall be updated annually prior to works commencing.

A skills matrix for personnel working on Council's line clearance program is provided below on the following page:

Role	Qualification(s)	Other Licences / Training that may apply
Cutter from EWP	UET20319 Certificate II in ESI – Powerline Vegetation Control, with current refresher. Certificate III Arboriculture or substantial equivalent experience	• Apply Occupational Health and Safety regulations, codes and practices in the workplace – UEENEEE101A • Comply with sustainability, environmental and incidental response policies and procedures - UETTDREL13A • Working safely near live electrical apparatus as a non-electrical worker – UETTDREL14A • Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus – UETTDRVC23A • Use elevated platform to cut vegetation above ground level near live electrical apparatus – UETTDRVC25A • Monitor safety compliance of vegetation control work in an ESI environment – UETTDRVC27A • Apply pruning techniques to vegetation control near live electrical apparatus – UETTDRVC33A • Apply ESI safety rules, codes and procedures for work on or near electrical apparatus – UETTDRRF01B • Perform EWP Rescue - UETTDRRF03B • Perform EWP controlled descent and escape - UETTDRRF08B • Provide first aid in an ESI environment - UETTDRRF10B • Licence to operate a boom-type elevating work platform (boom length 11m or more) - TLILIC2005 • Operate and maintain chainsaw - AHCARB205A • Operate machinery and equipment - AHCMOM304A • Provide cardiopulmonary resuscitation - HLTAID001 • Prepare to work safely in the construction industry (White Card) - CPCCWHS1001 • High Risk Work Licence (EWP) • Understand and adhere to AS 4373-2007 “Pruning of Amenity Trees” • Understand and adhere to the ‘Code of Practice on Electrical Safety’ for work on or near high voltage apparatus or the Blue Book
Safety Observer	UET20319 Certificate II in ESI – Powerline Vegetation Control, with current refresher.	• Apply Occupational Health and Safety regulations, codes and practices in the workplace – UEENEEE101A • Comply with sustainability, environmental and incidental response policies and procedures - UETTDREL13A • Working safely near live electrical apparatus as a non-electrical worker – UETTDREL14A • Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus – UETTDRVC23A • Use elevated platform to cut vegetation above ground level near live electrical apparatus – UETTDRVC25A • Monitor safety compliance of vegetation control work in an ESI environment – UETTDRVC27A • Apply pruning techniques to vegetation control near live electrical apparatus – UETTDRVC33A • Apply ESI safety rules, codes and procedures for work on or near electrical apparatus – UETTDRRF01B • Perform EWP Rescue - UETTDRRF03B • Perform EWP controlled descent and escape - UETTDRRF08B • Provide first aid in an ESI environment - UETTDRRF10B • Licence to operate a boom-type elevating work platform (boom length 11m or more) - TLILIC2005 • Operate and maintain chainsaw - AHCARB205A • Operate machinery and equipment - AHCMOM304A

Role	Qualification(s)	Other Licences / Training that may apply
		• Provide cardiopulmonary resuscitation - HLTAID001 • Prepare to work safely in the construction industry (White Card) - CPCCWHS1001 • High Risk Work Licence (EWP) • Understand and adhere to AS 4373-2007 "Pruning of Amenity Trees" • Understand and adhere to the 'Code of Practice on Electrical Safety' for work on or near high voltage apparatus or the Blue Book
Chipper Operator	Field experience and competent in the operation of machinery	• Operate machinery and equipment - AHCMOM304A • Operate a mobile chipper/ mulcher - FPIHAR2206B • Prepare to work safely in the construction industry (White Card) - CPCCWHS1001
Traffic Management Operator	Field experience and competent in the management of traffic	• Control traffic with a stop-slow bat - RIIWHS205D • Implement traffic management plan - RIIWHS302D • Prepare to work safely in the construction industry (White Card) - CPCCWHS1001
Supervisor	UET20319 Certificate II in ESI – Powerline Vegetation Control, with current refresher. Certificate III Arboriculture with substantial equivalent experience	• The same qualifications as Cutter from EWP and Safety Observer • Experience supervising operational teams
Assessing Arborist (Council Officer) Defect Assessment	UET20319 Certificate II in ESI – Powerline Vegetation Control, with current refresher. Certificate III Arboriculture with substantial equivalent experience	• Assess vegetation and recommend control measures in an ESI environment - UETTDRVC24A • Perform a ground-based tree defect evaluation - AHCARB408 • Minimum 5 years industry experience
Consultant or Senior Arborist (Council Officer or Contractor) Hazard tree and risk assessment	Diploma in Arboriculture and 5 years assessing experience	• Assess vegetation and recommend control measures in an ESI environment - UETTDRVC24 • Perform a ground-based tree defect evaluation - AHCARB408 • QTRA or TRAQ qualified

The required training and skills matrix for Contractor personnel against their designated work roles is included by the Contractor annually in their monthly report and review at the monthly contract meeting. Council's in-house operational staff will also have the above Training Matrix updated annually.

Council's employees or Contractors must also follow the minimum distances specified in the Electricity Safety (General) Regulations 2019 (specifically outlined in regulation 616) when undertaking tree clearing works, and comply with the limits of approach as outlined in:

- The Blue Book; and
- ESV Electrical Safety Rules for Vegetation Management Work Near Overhead Powerlines by Non-Electrical Workers.

Notification of affected parties will also be undertaken as per the requirements of the code with further detail provided in section 9(4)(q) below.

Council does not require persons undertaking tree cutting works to have a minimum level of experience in order to undertake the work. As long as individuals have the required training and operate to the training and safety standards outlined in the Regulations, a minimum level of experience is not required. All personnel undertaking pruning will be made aware of the pruning quality requirements detailed in 9(4)(k) during worksite inductions and be suitably qualified, as defined in section 9(4)(p).

Where a tree that is likely to fall onto or otherwise come into contact with an electric line, the tree will be risk assessed by a Consultant Arborist. If a Consultant Arborist is not practically available, an assessment will be undertaken by an Assessing Arborist. The assessment will take into account foreseeable local conditions and consider the classification of the tree. Based on the Arborist's assessment and recommendations, the hazard tree will be actioned in compliance with the Code.

Council personnel conduct annual desk top audits of their Contractors. During these audits training certificates and qualifications will be evaluated to ensure only competent and experienced contractor employees are utilised by Council for the works required within the Contract.

The required training and skills matrix for Contractor personnel against their designated work roles is included by the Contractor in their monthly report and reviewed at the monthly contract meeting.

Contractor personnel found not to be appropriately trained for the designated task must be removed from line clearance work as specified in the Contract.

All licences, qualifications and training records of Council employees and Contractors are kept with Coordinator Infrastructure Maintenance. These records are kept within Council's document management system and hard copies are available from Council's Warragul Depot.

At the beginning of each financial year, all appropriate Council employees and Contractors engaged by Baw Baw Shire Council are to attend a pre-commencement meeting to establish and confirm to employees and Contractors of Council's contract expectations and Occupational Health and Safety requirements of the Contract.

In the case of any doubts regarding the safety of pruning or clearance of vegetation near electric lines, the Coordinator Infrastructure Maintenance must consult AusNet Services to determine:

i. The safe limits of approach to the electric lines in question when pruning.
ii. Safe methods for removing vegetation near the electric lines including the need for power shutdown or auto-reclose suppression.

iii. Whether alternatives, such as the replacement of the tree with more suitable species, the relocation of the electric lines or alternative methods of construction should be considered where there is an on-going safety problem.

Any Fire Prevention Plan approved by the Emergency Management Committee appointed by Council, under the provisions of the Country Fire Authority Act 1958 Division 3 Section 54, must be developed in consideration of the requirements of this Plan. In matters relating to electric lines, the clearances in the Fire Prevention Plan must, as a minimum requirement, conform to the Electricity Safety (Electric Line Clearance) Regulations 2020.

9(4)(q) NOTIFICATION AND CONSULTATION PROCEDURES

Council understands the importance of providing notification of programmed tree pruning works to affected persons.

All tree works carried out in Council's Declared Areas must follow Baw Baw Shire Council's Tree Policy, Tree Inspection Policy and Guidelines, and Open Space Maintenance Standards 2020. These documents are available via email request to bawbawshire@bawbawshire.vic.gov.au.

In the case of trees requiring removal, Council's Supervisor Arborist will notify affected residents and/or any related community groups.

Baw Baw Shire Council's Supervisor Arborist will also give notice to the general public through notification on the Council website, of all planned electric line pruning maintenance works. Notifications will be made on Council's website no less than 14 and no more than 60 days prior to the commencement of works and will generally occur annually, in June, as outlined in the table of Schedule of Works in Table 1.

An example of the notifications can be found in Appendix 4.

9(4)(r) DISPUTE RESOLUTION PROCEDURES.

The following dispute resolution procedure is in place for internal and external disputes that may arise during the period of this plan;

a. Internal Dispute Resolution:
    - Disputes between Council and the public relating to issues with the pruning of Council trees to comply with the Regulations will be resolved in accordance with Council Policy and Tree Management Guidelines. Disputes will be resolved through a consultation process between the complainant, and the Coordinator Infrastructure Maintenance.
    - Throughout the process, Council may contact complainants to discuss their concerns or to ask for more information.
b. External Dispute Resolution
    - If Council has been unsuccessful in resolving the dispute the person will be referred to the Energy and Water Ombudsman of Victoria (EWOV) and escalation to Energy Safe Victoria if required.

PART 2 – CLEARANCE RESPONSIBILITIES

DIVISION 1 – ROLE OF RESPONSIBLE PERSONS

(1) EXCEPTION TO MINIMUM CLEARANCE SPACE FOR STRUCTURAL BRANCHES AROUND INSULATED LOW VOLTAGE ELECTRIC LINES

Where a tree is identified with a structural branch within the clearance space >130mm in diameter and removal of the branch will significantly alter the shape of the tree or compromise its structure, Council may undertake an individual risk assessment of the tree to determine whether this exception to the normal clearance requirements is appropriate.

The Exception relates to a structural branch with a part that is >130mm diameter within the Clearance Space for spans that are:

(i) Less than or equal to 40m in length and the branch is >150mm from the line, or
(ii) Greater than 40m in length and the branch is >300mm from the line.

If Council chooses to apply this Exception, an individual risk assessment of the tree will be undertaken annually to determine that the branch does not have a defect or otherwise pose an unreasonable risk. All assessments for trees to which this exception may be or is applied will be undertaken by an arborist with a minimum of AQF Level 5 in Arboriculture, or equivalent, and with all relevant training as detailed in Part 1 9(4)(p) of this Plan.

All assessment records will be held as per Council's data retention policies, and for a period of no less than 5 years.

(2) EXCEPTION TO MINIMUM CLEARANCE SPACE FOR SMALL BRANCHES AROUND INSULATED LOW VOLTAGE ELECTRIC LINES

Where it is identified that foliage and branches less than 10mm in diameter have grown within the clearance space of a low voltage insulated cable, the pruning records for the tree will be reviewed to ensure the tree has been pruned to comply with the minimum clearance space in the previous 12 months. If it has, the tree will be noted as requiring pruning during the next cycle of the annual clearance program. If it has not, the Contractor will be required to prune the tree within 14 days of receiving the non-conformance. This will not be treated as a contractual non-conformance or breach of contract.

(3) EXCEPTION TO MINIMUM CLEARANCE SPACE FOR SMALL BRANCHES AROUND UNINSULATED LOW VOLTAGE ELECTRIC LINES IN LOW BUSHFIRE RISK AREAS

As part of Council's annual pruning program, Council's Contractor has been requested to identify all trees within the Declared Area that meet the requirements for exception as outlined in Section 6 of Schedule 1 of the Code. Where it is identified that foliage and branches less than 10mm in diameter have grown no more than 500mm within the clearance space under an uninsulated low voltage line, and if it is within the middle 2/3 of the span spreaders fitted as required, the pruning records for the tree will be reviewed to ensure the tree has been pruned with the aim to comply with the minimum clearance space in the previous 12 months.

If it has, the tree will be noted as requiring pruning during the next cycle of the annual clearance program. If it has not, Council requires all vegetation that does not qualify for an exception to be pruned aiming to maintain clearance spaces for a period of one year. Any breaches of this clearance are addressed in accordance with the detail set out in sections 9(4)(n) and 9(4)(o) and entered into Council's record management systems and actioned by Council contractors within 14 business days of receipt of the request for service.

(7) EXCEPTION TO MINIMUM CLEARANCE SPACE FOR STRUCTURAL BRANCHES AROUND UNINSULATED LOW VOLTAGE ELECTRIC LINES IN LOW BUSHFIRE RISK AREAS

Where a tree is identified with a structural branch within the clearance space >130mm in diameter and removal of the branch will significantly alter the shape of the tree or compromise its structure, Council may undertake an individual risk assessment of the tree to determine whether this exception to the normal clearance requirements is appropriate.

This exception relates to a structural branch with a part that is >130mm diameter within the clearance space for spans that are:
Less than 45m in length, contain one conductor spreader and the branch is >500mm from the line, or
Greater than 45m in length, contains two conductor spreaders and the branch is >500mm from the line.

If Council chooses to apply this exception, an individual risk assessment of the tree will be undertaken annually to determine that the branch does not have a defect or otherwise pose an unreasonable risk. All assessments for trees to which this exception may be or is applied will be undertaken by an arborist with a minimum of AQF Level 5 in Arboriculture, or equivalent, and with all relevant training as detailed in Part 1 9(4)(p) of this Plan.

All assessment records will be held as per Council's data retention policies, and for a period of no less than 5 years.

(8) OWNER OR OPERATOR OF TRANSMISSION LINE MUST MANAGE TREES AROUND MINIMUM CLEARANCE SPACE

Council is not an owner or operator of transmission lines and is therefore not responsible for electrical clearance of vegetation around transmission lines.

(9) RESPONSIBLE PERSON MAY CUT OR REMOVE HAZARD TREE

Council is responsible for pruning or removing urgent trees under powerlines. After undertaking the work, Council will notify;

1) All affected persons;
2) The occupier of the land on which the tree was cut or removed; and
3) If a tree was removed, the owner of the land on which the tree was removed.

Council's service provider provides a letter to the homeowner at the time of removal. An example of the notice is included in Appendix 4.

The Contractor engaged for urgent pruning or removal will record all urgent works and completion of the notification requirement in the Customer Relationship Management system (CRM) including:

a) Where and when the cutting or removal was undertaken;
b) Why the cutting or removal was required; and
c) The last inspection of the section of the electric line where the cutting or removal was required.

Where the urgent cutting or removal is required, the Contractor will detail to the customer whether the removal was:

i. As a result of the encroachment or growth of trees that was not anticipated in the management plan; or
ii. During the fire danger period declared under the Country Fire Authority Act 1958.

The tree maintenance team engaged for urgent cutting or removal as a result of unanticipated regrowth, will not remove or cut the trees further than 1 metre from the minimum clearance space around the electric line and will notify the affected person(s) after the works have been carried out using the form in Appendix 3.

Records of all urgent works and completion of the notification requirement will be kept for a period of no less than 5 years within Councils document management system. In the case where work is completed by a Contractor, records of work will be provided to Council as part of the Contractor's written monthly report.

PART 2 – CLEARANCE RESPONSIBILITIES

DIVISION 2 – MANNER OF CUTTING AND REMOVING TREES

(9) RESPONSIBLE PERSON MAY CUT OR REMOVE HAZARD TREES

Please see Part 1 9(4)(j)

(10) CUTTING OF TREE TO COMPLY WITH STANDARD

Please see Part 1 9(4)(k)

(11) CUTTING OR REMOVAL OF INDIGENOUS OR SIGNIFICANT TREES MUST BE MINIMISED

Please see 9(4)(h) and 9(4)(i).

(12) CUTTING OR REMOVING HABITAT FOR THREATENED FAUNA

Please see 9(4)(i).

PART 2 – CLEARANCE RESPONSIBILITIES

DIVISION 3 – NOTIFICATION, CONSULTATION AND DISPUTE RESOLUTION

(16) RESPONSIBLE PERSON MUST PUBLISH NOTICE BEFORE CUTTING OR REMOVING CERTAIN TREES

Please see 9(4)(q).

PART 2 – CLEARANCE RESPONSIBILITIES

DIVISION 4 – ADDITIONAL DUTIES OF RESPONSIBLE PERSONS

(20) DUTY RELATING TO THE SAFETY OF CUTTING OR REMOVAL OF TREES CLOSE TO AN ELECTRIC LINE

Where Council and its Contractor are unsure of the safety of pruning or removing a tree, they will consult with the relevant Distribution Business, or if the tree affects a railway supply line, the relevant Railway Operator, to develop an appropriate action plan to mitigate the hazard or bring the tree into compliance with the Code.

The contact details of the relevant organisations are provided at the beginning of this Plan.

(21) DUTY RELATING TO ASSISTING TO DETERMINE THE ALLOWANCE FOR CONDUCTOR SAG AND SWAY

Notwithstanding other requirements of this clause, Council notes that an owner, operator or distribution company that is consulted by a Council under subclause 21(1) of the Regulations must assist the Council by determining the additional distance. Council will keep a record of the information provided, including the additional sag and sway distances for at least 5 years

PART 3 – MINIMUM CLEARANCE SPACES

DIVISION 2 - ALTERNATIVE COMPLIANCE MECHANISMS

(31) APPLICATION FOR APPROVAL OF ALTERNATIVE COMPLIANCE MECHANISM

Council does not hold approval for or intend to use any alternative compliance mechanisms.

If Council should apply to Energy Safe Victoria for approval to use an alternative compliance mechanism in respect of a span of an electric line or a class of spans, the application will contain details including:

(i) the alternative compliance mechanism; and

(ii) a written confirmation from the Distribution Business or alternative qualified provider that includes:

a) the procedures to be adopted for commissioning, installing, operating, maintaining and decommissioning the alternative compliance mechanism; and

b) the published technical standards that will be complied with when commissioning, installing, operating, maintaining and decommissioning the alternative compliance mechanism; and

c) specify the location of the span of electric line; or describe the class; and

d) the minimum clearance space proposed is to be applied in relation to the span, or class of spans, in respect of which the application is made; and

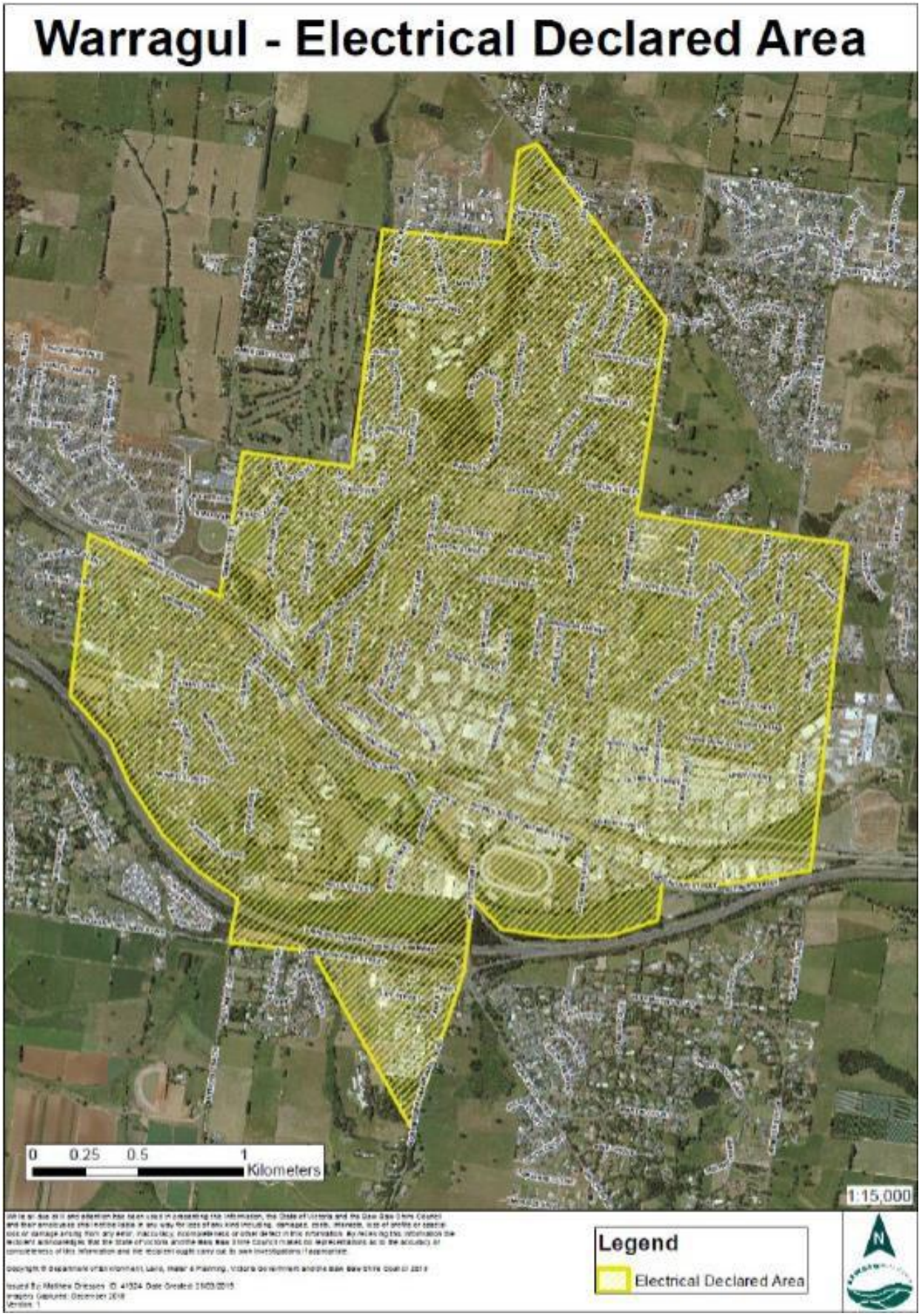
e) a copy of the formal safety assessment prepared by the Distribution Business or an alternative qualified provider under clause 32.

(iii) a copy of the written agreement of the owner or the operator of the span; or the owner or the operator of each span that belongs to that class.

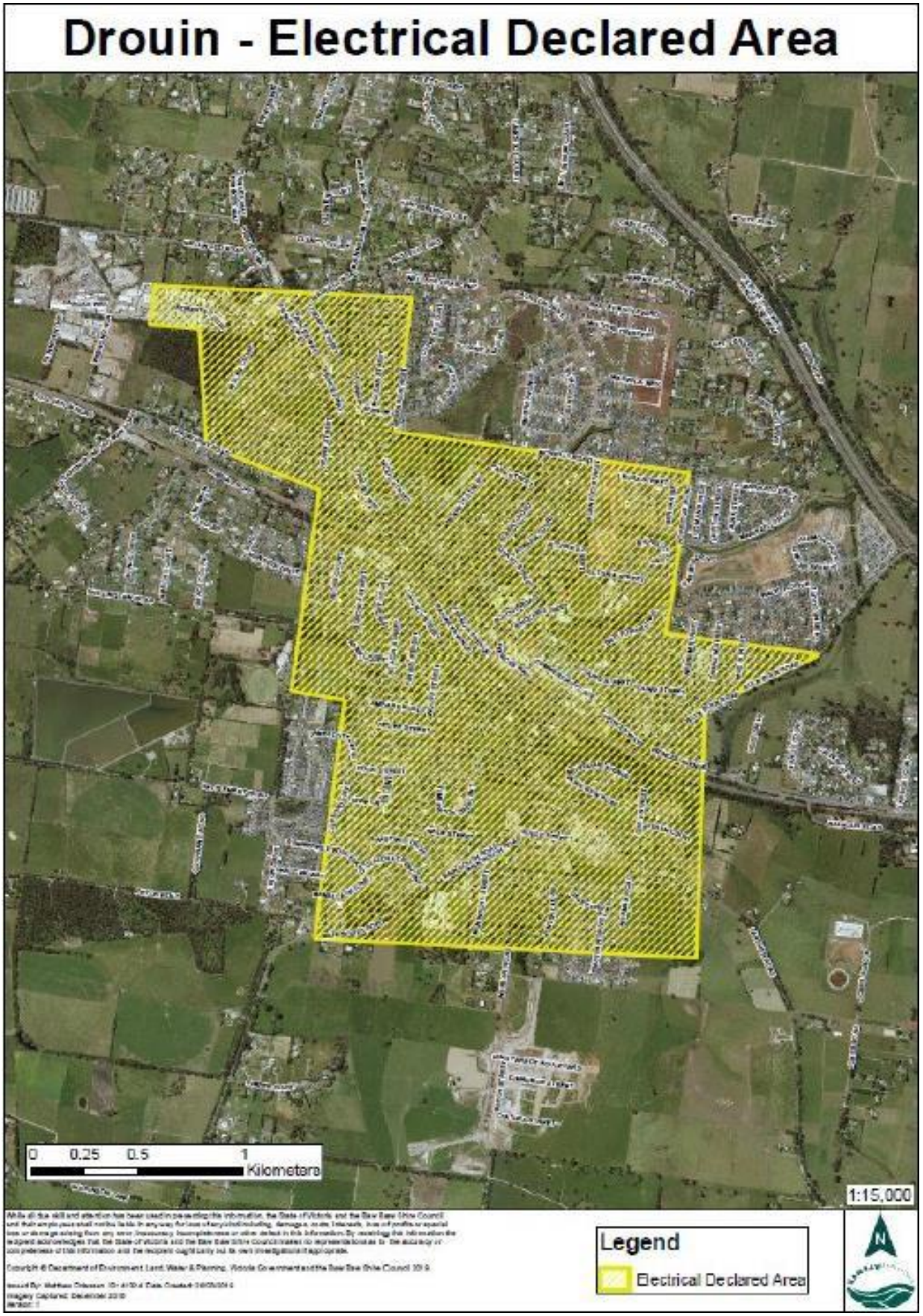
(32) FORMAL SAFETY ASSESSMENT OF ALTERNATIVE COMPLIANCE MECHANISM

As Council Officers are not qualified to provide a formal safety assessment, any assessment will be prepared by the Distribution Business or an alternative qualified provider and will comply with the requirements as defined in Schedule1, part 3, Division 2, and Clause 1 of the Code.

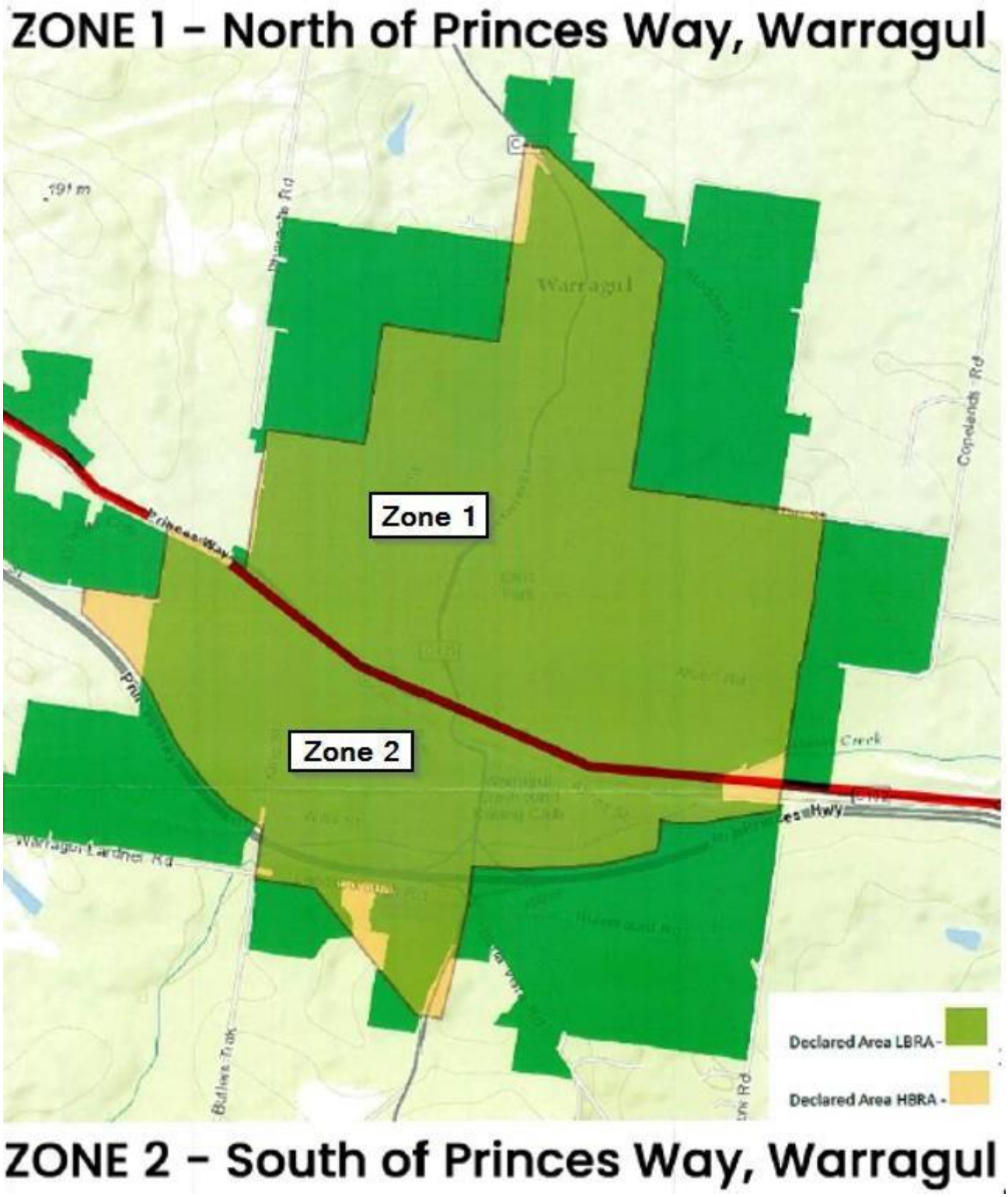
APPENDIX 1: Declared Area Map – Warragul (1 of 2)



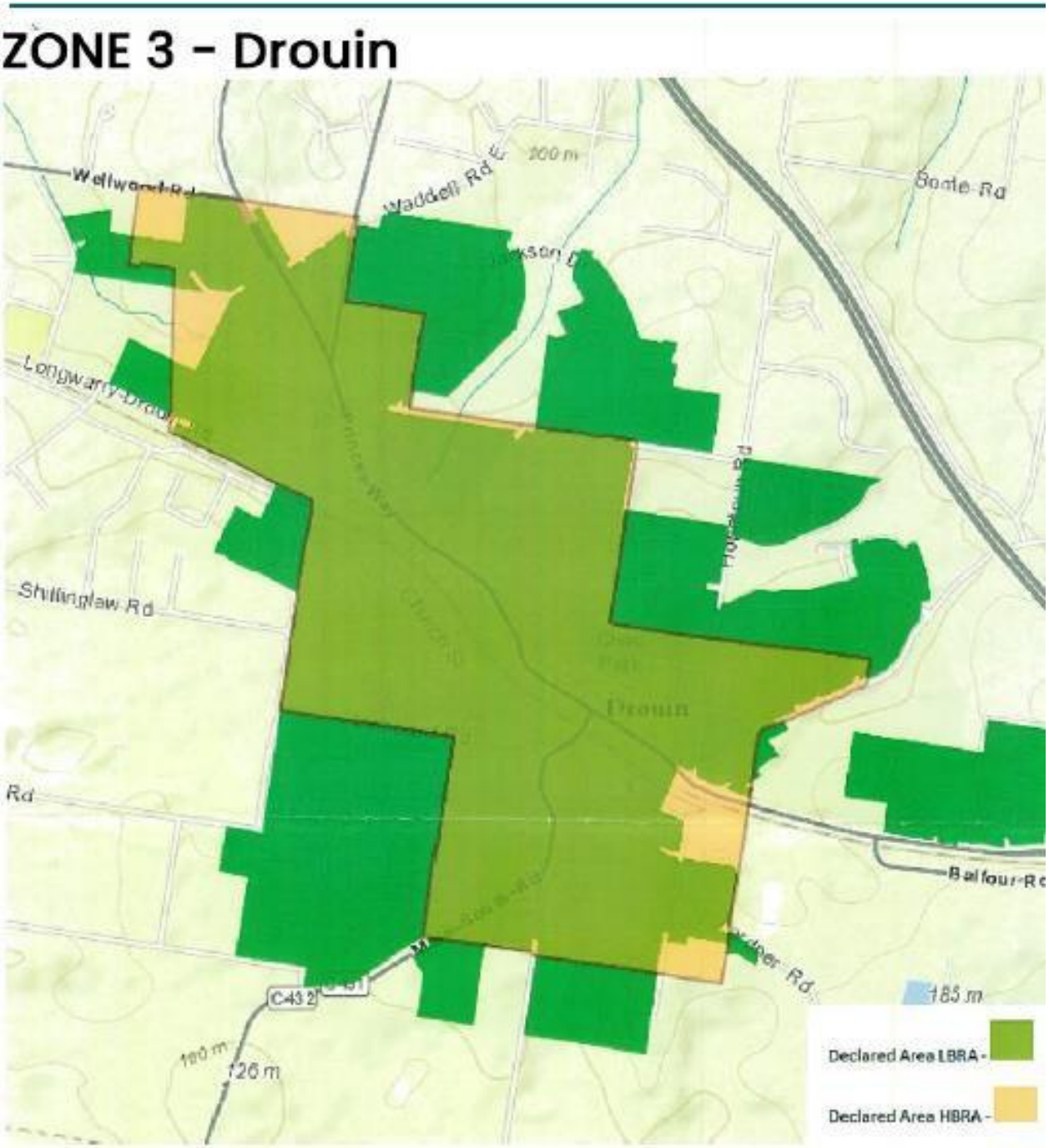
APPENDIX 1: Declared Area Map – Drouin (2 of 2)



APPENDIX 2: Map of Bushfire Risk areas within the Declared Area and pruning zones- Warragul (1 of 2)



APPENDIX 2: Map of Bushfire Risk areas within the Declared Area and pruning zones - Drouin (2 of 2)



APPENDIX 3: Sample Inspection Audit Form

Electric Line Clearance Inspection Audit Checklist

In house team / Contractor.....

Site / Location.....

Date.....Time.....

Inspector.....

Signed by Inspector.....

Signed by Nominated Representative.....

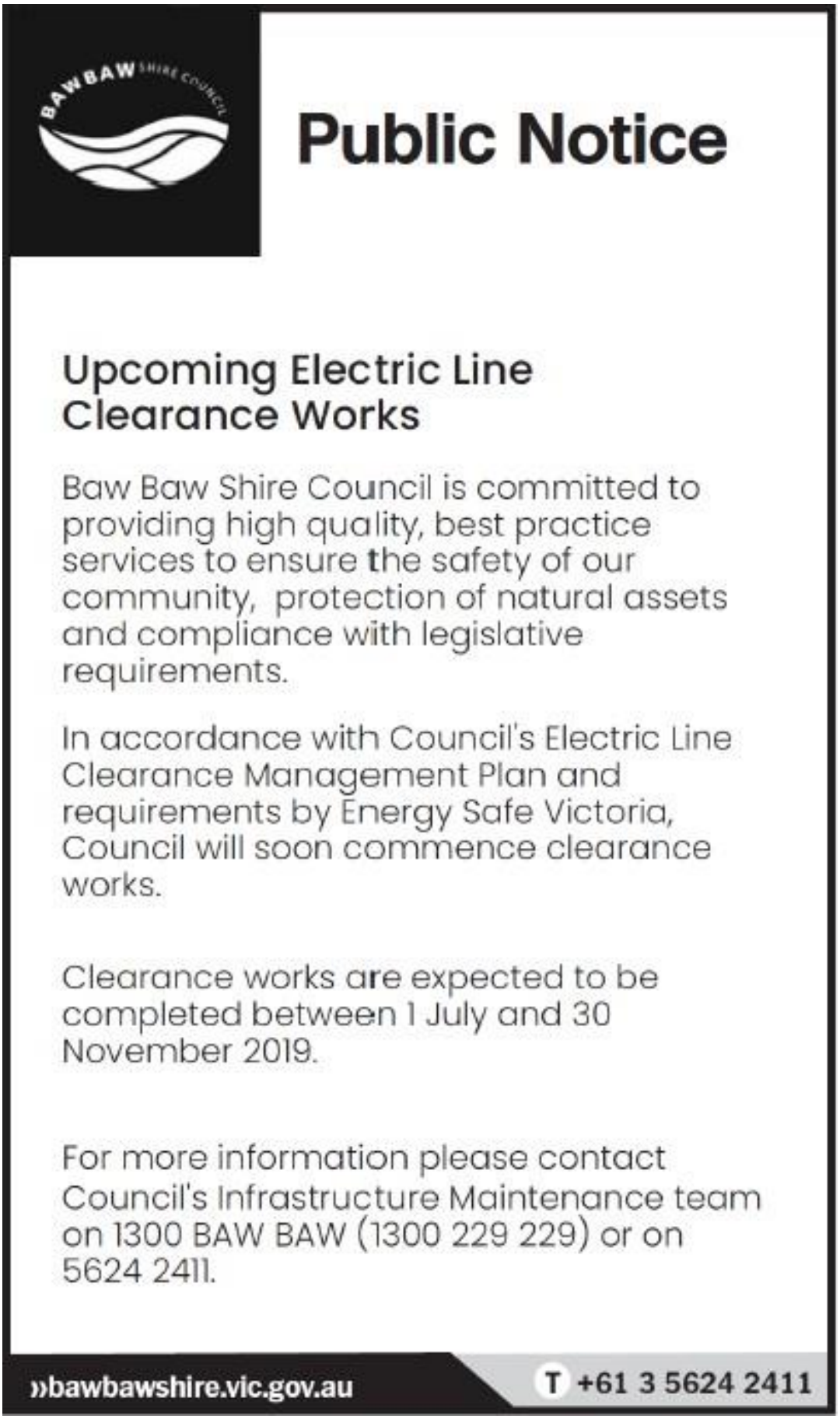
	YES	NO	N/A
Safe Work Method Statement / Job Safety Analysis completed			
Traffic management signs in place			
Cone / bollards in place			
Staff wearing safety footwear, hard hats, ear protection, hi vis			
Electric line operators wearing long sleeve cotton shirts			
Safety observer present			
Compliance with AS 4373-2007 Pruning of amenity trees			
Vegetation clearance is to the current Electricity Safety (Electric Line Clearance) Regulations.			
Staff qualified and competent - holding current certifications			
Plant / equipment used correctly			
Remedial works required			
First aid kit			
Elevated work platform electrical test date			
Harness expiry date			

Notes:.....

.....

bawbawshire.vic.gov.au

APPENDIX 4: Public Notice of Upcoming Electric Line Clearance Works



Public Notice

Upcoming Electric Line Clearance Works

Baw Baw Shire Council is committed to providing high quality, best practice services to ensure the safety of our community, protection of natural assets and compliance with legislative requirements.

In accordance with Council's Electric Line Clearance Management Plan and requirements by Energy Safe Victoria, Council will soon commence clearance works.

Clearance works are expected to be completed between 1 July and 30 November 2019.

For more information please contact Council's Infrastructure Maintenance team on 1300 BAW BAW (1300 229 229) or on 5624 2411.

»bawbawshire.vic.gov.au T +61 3 5624 2411

APPENDIX 4: Notice of Cutting or Removal of Tree from unexpected regrowth or other reasons as per Clause 17 (2) (a), (b) and Clause 3 (a),(b),(c) of Electricity Safety (Electric Line Clearance) Regulations 2020

Example of Notice:

To the Resident,

Re: Notification of Street Tree Electric Line Clearance maintenance

In accordance with the Electricity Safety (Electric Line Clearance) Regulations 2020, Baw Baw Shire Council will be carrying out electric line pruning clearances between «date» and «date» at the above location.

Council and/or contractors appointed by Council will need to use heavy machinery equipment to prune these trees and surface marks from this equipment will be kept to a minimum but sometimes this is not possible.

Council will attempt to have these works completed within 14 working days; subject to weather / environmental conditions.

For any general queries or any concerns with the works prior to or during maintenance works, please contact Council's Infrastructure Maintenance Team on 5624 2411 or tollfree 1300 BAW BAW (1300 229 229) and ask for Council's Supervisor Tree Maintenance, or email: Council.Depot@bawbawshire.vic.gov.au.

Yours sincerely,

Alicia Fitzgerald

Coordinator Tree Maintenance

APPENDIX 5: Register of Significant Trees Impacted by Powerlines and Baw Baw Shire Council Tree List

Register of Significant Trees Impacted by Powerlines

Warragul	
Species	**Location**
English Oak *(Quercus robur)*	Queen Street, Alford St
Indian Bean Tree *(Catalpa bignonioides)*	Normanby Street
Desert Ash *(Fraxinus oxycarpa)*	Normanby Street, Alfred Street and Logan Park

Drouin	
Species	**Location**
Red Flowering Gum (*Corymbia ficifolia)*	Princes Way and Bank Street
Red Gum *(Angophora costata)*	Main South Road

Baw Baw Shire Council Tree List

Baw Baw Shire Council Tree List

Legend

Acronym	Characteristics of Species - Description
D	Deciduous
E	Evergreen
SD	Semi-deciduous
N	Native - native to Australia
I	Indigenous - native to Baw Baw
E	Exotic - not originating from Australia

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Acacia dealbata	Silver Wattle, Mimosa	E	I	Greyish-green bipinnate leaves. Cream ball-shaped flowers in Spring.	Variable tree grown from seed. Hardy and suited to most soils and aspects. Fast growing. Habit more like a large shrub than a tree.				•
Acacia implexa	Lightwood	E	N	Very similar in appearance to Blackwood but flowers in Summer.	Tolerates a wide range of soil conditions. Roots sucker profusely if disturbed therefore it is not suitable as a street tree.			•	
Acacia mearnsii	Black Wattle	E	I	Erect tree with smooth bark. Pale yellow/cream flowers in summer.	Hardy and suited to most soils and aspects. Fast growing. Food source for Possums and Gliders.				•
Acacia melanoxylon	Blackwood	E	I	Flowers in Summer	Strong-wooded and long-lived compared with other Wattles. Prefer soils that are free-draining. Good shade tree.			•	•
Acacia obliquinervia	Mountain Hickory Wattle	E	I	Highly ornamental	Can withstand snow and tolerates extended periods of dry.			•	•
Acacia pycnantha	Golden Wattle	E	I	Yellow ball-shaped flowers in Spring. Can be multi-stemmed from ground.	Relatively short-lived. Prefers sunny position.			•	•

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Acer buergerianum	Trident Maple	D	E	Autumn colours later than most trees, providing visual interest in early winter.	Good for use in restricted spaces. Ensure trees with central leader are selected for planting. Tolerates moderate drought conditions. Does not tolerate strong hot northerly winds well.	•		•	
Acer x freemanii	Freeman Maple	D	E	Brilliant reddish-orange autumn foliage.		•		•	
Acer japonicum 'Vitifolium'	Vine-leaf Maple	D	E	Brilliant reddish-orange autumn foliage.	Vase shaped tree. Requires a protected position. Prefers moist, well-drained soil.			•	
Acer palmatum cultivars	Japanese Maple	D	E	Brilliant reddish-orange autumn foliage.	Prefer moist, well-drained soil in protected positions, making them better suited to protected public open spaces than exposed streets.			•	
Acer rubrum	Red Maple	D	E	Five-lobed leaves with red petioles. New stems are bright red. Orange to Pinkish-red foliage in Autumn.	Tolerates a wide range of conditions. Doesn't tolerate extremely dry soil. There are various cultivars available such as 'Fairview Flame', 'October Glory' and 'Brandywine'	•		•	
Acer saccharum	Silver Maple or Sugar Maple	D	E	Brilliant reddish-orange autumn foliage.		•			
Acer truncatum x Acer platanoides 'Keithsform'	Norwegian Sunset Maple	D	E	Brilliant reddish-orange autumn foliage.	There are other cultivars of Norway Maples *(Acer platanoides)* which have slightly different form and foliage colours and soil and climatic tolerances.	•		•	
Acmena smithii	Lilly Pilly	E	N	Deep purple fruits can make a mess when they fall.	Rainforest plant that is useful as a hedge or a single tree. Tolerates a range of soil types but does require relatively moist soils.			•	
Aesculus x carnea 'Briotii'	Red Brioti Horse Chestnut	D	E	Showy red flowers.	Useful specimen tree.			•	
Aesculus hippocastanum	Horse Chestnut	D	E	Showy white flowers.	Useful specimen tree.			•	
Agonis flexuosa	Willow Myrtle	E	N	Fragrant flowers in late Spring. There are cultivars which have dark red/purple leaves.	Tolerates a wide range of conditions but grows best in free draining soil. Can be pruned to retain its ideal shape and can be grown in height-restricted sites.	•		•	
Allocasuarina littoralis	Black She-oak	E	I	Ornamental foliage and bark.	Male and female flowers are on separate plants, with female plants bearing small woody cones. Makes a useful shelterbelt or windbreak.			•	•

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Allocasuarina torulosa	Rose She-oak	E	N	Rusty brown colour when flowering in Autumn.	Useful screening tree if planted in large numbers. Does produce fine leaf litter and cone-like fruits.			•	
Allocasuarina verticillata	Drooping She-oak	E	N	Pendulous foliage.	Will tolerate extremely dry soils. Can appear straggly and sparse but will become more dense once mature.			•	
Angophora costata	Smooth-barked Apple	E	N	Grey bark with dark red flecks.	Intolerant of frost when young.	•		•	
Araucaria heterophylla	Norfolk Island Pine	E	N	Very distinct foliage and tree shape.				•	
Atherosperma moschatum	Southern Sassafras	E	I	Sweet aromatic scent. Creamy white flowers in Autumn to Winter.	Small to medium sized tree, sometimes reaching 25m. Drought intolerant. Requires protected sites with moist, humus rich soils. Grows well in gullies.			•	•
Banksia integrifolia	Coast Banksia	E	N	Pale yellow flowers. Leaves are dark green on top and silver underneath.	Useful tree in urban areas. Tolerates a range of soil types and prefers full sun. Attracts nectar-eating birds.			•	
Bedfordia arborescens	Blanket-leaf	E	I		Prefers cool moist shaded conditions. Will tolerate full sun in moist conditions.				
Betula species and cultivars	Birch	D	E	The species 'pendula' is the Silver Birch which has attractive white/silver bark. Most varieties have green leaves that turn yellow in autumn. Purple-leaved varieties are also available.	Birches commonly drop limbs and catkins making them messy street trees. Prefer moist well- drained			•	
Brachychiton acerifolius	Illawarra Flame Tree	E	N					•	
Callistemon citrinus	Crimson Bottlebrush	E	N					•	
Callistemon pallidus	Lemon Bottlebrush	E	I					•	
Callistemon salignus	Willow Bottlebrush	E	N	Weeping canopy and paperbark trunk. Beautiful showy display of creamy-white bottlebrush flowers typically appearing in late Spring. There is a red flowering cultivar available called 'Rubra'. New foliage is pink.	Has a vigorous root system and should be planted in wide nature strips or sites that are not too close to paved areas. Can be grown in height-restricted sites.	•		•	

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Callistemon viminalis	Weeping Bottlebrush	E	N		Can be grown in height- restricted sites.			•	
Calodendrum capense	Cape Chestnut	E	E	Vast display of pink flowers in summer.	Doesn't have a vigorous root system, which makes it possible to plant it near paved areas. Prefers well-drained soils and may require summer watering.	•		•	
Cedrus deodara	Deodar Cedar	E	E					•	
Correa lawrenceana	Mountain Correa	E	I						
Corymbia citriodora	Lemon-scented Gum	E	N	Smooth pale grey bark is striking. Foliage is weeping, and long narrow leaves are lemon-scented.	Small, young specimens do not tolerate frost well. Can be susceptible to Lerp. There are dwarf cultivars available. Prefers full sun.			•	
Corymbia eximia	Yellow Bloodwood	E	N	Stunning masses of cream flowers in Spring.	Small, young specimens do not tolerate frost well. Tolerates a wide range of soil conditions and is good for difficult sites.			•	
Corymbia ficifolia	Red-flowering Gum	E	N	Showy summer flowering. There are many cultivars available with various colours available, including scarlet, orange and salmon.	Does not tolerate waterlogging and requires well-draining soil.	•		•	
Corymbia maculata	Spotted Gum	E	N	Spotted trunk is very distinctive.	Small, young specimens do not tolerate frost well.	•		•	
Erythrina crista-galli	Cockscomb Coral Tree	D	E			•		•	
Eucalyptus baxteri	Brown Stringybark	E	I		Often found on poorer soils as a low spreading tree.			•	•
Eucalyptus bridgesiana	Apple Box	E	I	Distinctive round, glaucous, juvenile foliage.	Has potential to help remediate gully erosion. Flowers attract nectar-eating birds.			•	•
Eucalyptus cephalocarpa	Silver-leaf Stringybark / Mealy Stringybark	E	I	Attractive silver-blue foliage.	Spreading habit.			•	•
Eucalyptus consideniana	Yetchuk	E	I		Suits well-drained sandy and gravelly soils of low fertility.			•	•
Eucalyptus croajingolensis	Gippsland Peppermint	E	I	Bluish-grey foliage with a strong peppermint smell when crushed.				•	•

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Eucalyptus cypellocarpa	Mountain Grey Gum	E	I		Grows to a very large tree under favourable conditions. Will tolerate a range of conditions, from dry plains to wet forest.			•	•
Eucalyptus dives	Broad-leaf Peppermint	E	I		Good shade tree.			•	
Eucalyptus elata	River Peppermint	E	N					•	
Eucalyptus fulgens	Green Scentbark	E	I	Thick fissured bark.	Spreading tree.			•	•
Eucalyptus globoidea	White Stringybark	E	I		Usually found on dry, shallow, rocky soils.			•	•
Eucalyptus globulus subsp. bicostata	Southern Blue Gum	E	I	Blue-green juvenile foliage and very large gumnut. Roughish grey bark which is shed on upper trunk and branches in long ribbons.	Shedding of bark creates significant amount of litter making it unsuitable for street tree planting.			•	•
Eucalyptus leucoxylon	Yellow Gum	E	N	Showy yellow flowers, but there are pink-flowered forms such as 'Rosea'.	Size of tree varies depending on provenance, cultivar and seed selection. 'Eukie Dwarf' is one of the dwarf cultivars available. Species is prone to poor branch attachment.			•	
Eucalyptus mannifera	Red Spotted Gum	E	N	White trunk with reddish flecks.	Little Spotty' is one of the dwarf cultivars available. Does not tolerate waterlogging and requires well-draining soil.	•		•	
Eucalyptus melliodora	Yellow Box	E	N	The bark, which is brown and fibrous peels off revealing a smooth, white under bark.	Too large for typical residential streets. Size of tree varies depending on provenance, cultivar and seed selection. Prefers well-draining soil. Frost tolerant.	•		•	
Eucalyptus meuelleriana	Yellow Stringybark	E	I		Slow-growing tree.			•	•
Eucalyptus nicholii	Willow-leaf Peppermint	E	N					•	
Eucalyptus obliqua	Messmate	E	I		Too large for typical residential streets. Grows on a wide variety of soil types. Varies in form.			•	•
Eucalyptus ovata	Swamp Gum	E	I		Koala habitat.			•	•
Eucalyptus pauciflora 'Little Snowman'	Dwarf Snow Gum	E	N			•		•	

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Eucalyptus polyanthemos	Red Box	E	N	Flowers during spring to early summer.	Useful in large avenues and streets and parks.	•		•	
Eucalyptus pryoriana	Gippsland Manna Gum	E	I					•	
Eucalyptus radiata	Narrow-leaved Peppermint	E	I	Heavy bearer of seed.	Widespread on poorer, shallow soils.			•	•
Eucalyptus regnans	Mountain Ash	E	I		Very large tree that requires plenty of space.			•	•
Eucalyptus scoparia	Wallangarra White Gum	E						•	
Eucalyptus sideroxylon	Red Iron-bark	E	N	Flowers during Winter. Deeply fissured bark is a rusty red beneath and black on the surface.	Performs well in urban areas and is relatively tolerant to frost. Co-dominant leaders are common.			•	
Eucalyptus sieberi	Silver-top Ash	E	I		Large tree usually found on drier ridges.			•	•
Eucalyptus strzeleckii	Strzelecki Gum	E	I		Tree species that is vulnerable in Victoria and Australia. Only found naturally in West and South Gippsland.			•	•
Eucalyptus viminalis	Manna Gum	E	I	Flowers during summer to autumn.	Koala habitat.			•	•
Fagus sylvatica f. Purpurea	Copper or Purple Beech	D	E	Beautiful dark purple leaves provide visual interest through spring and summer. Attractive, smooth grey bark. Coppery-brown foliage in Autumn.	Prefers moist soils but tolerates some dryness.			•	
Ficus microcarpa var. hillii	Hill's Weeping Fig	E	N	Smooth grey trunk and glossy green foliage.	Careful establishment may be required to harden off trees and acclimatise them to the local climate if they are grown in Northern Australia. Once acclimated, Weeping Figs can tolerate a very wide range of urban conditions.			•	
Fraxinus griffithii	Evergreen Ash	E	E					•	
Ginkgo biloba	Maidenhair Tree	D	E	Very attractive yellow autumn foliage.	Very slow growing tree. Does not tolerate extended periods of dry soil.			•	
Gleditsia triacanthos	Honeylocust	D	E	Finely dissected foliage that turns yellow in Autumn.	There are a number of cultivars available, some of which are thornless. Honeylocust tolerates a wide range of conditions but prefers well-drained soil.	•		•	

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Jacaranda mimosifolia	Jacaranda	E	E	Attractive purple flowers and dissected foliage.	Small, young specimens do not tolerate frost well.			•	
Koelreuteria paniculata	Golden Rain Tree	D	E	Multi-seasonal interest provided by bronze/gold autumn foliage and yellow flowers in Summer.	Slow-growing tree that may require irrigation during establishment. Best grown in well-managed sites in full-sun.			•	
Lagerstroemia indica	Crepe Myrtle	D	E	A variety of different coloured flowering cultivars are available. Many cultivars have peeling bark that is very attractive. Different cultivars also have distinctive habits, with some relatively narrow and other quite broad.	Can be grown in height- restricted sites. Most selections of Lagerstroemia are now resistant to Powdery Mildew, which has been a problem in the past.	•		•	
Leptospermum continentale	Prickly Tea Tree	E	N					•	
Leptospermum petersonii	Lemon Scented Tea Tree	E	N					•	
Liriodendron tulipifera	Tulip Tree	D	E					•	
Lophostemon confertus	Brush Box	E	N	Medium sized tree with rounded head and attractive bark and mid-dark green glossy leaves.	The trees do not grow an extensive root system.			•	
Magnolia cultivars (deciduous)	Magnolia	D	E	Excellent specimen tree because of their magnificent display of flowers and autumn colour.	Most Magnolias do not tolerate root disturbance and are better suited to public open spaces than in streets.			•	
Magnolia grandiflora	Evergreen Magnolia or Bull Bay Magnolia	E	E	Large, glossy green leaves with bronze underside.	Evergreen Magnolias prefer well- drained soil and may require some summer irrigation whilst establishing. 'Little Gem' is one of the dwarf cultivars available with very compact growth.	•		•	
Malus tschonoskii	Crabapple	D	E	Great autumn foliage colour.	Narrow, upright tree.			•	
Malus ioensis 'Plena'	Crabapple	D	E					•	
Melaleuca armillaris	Bracelet Honey Myrtle	E	N					•	

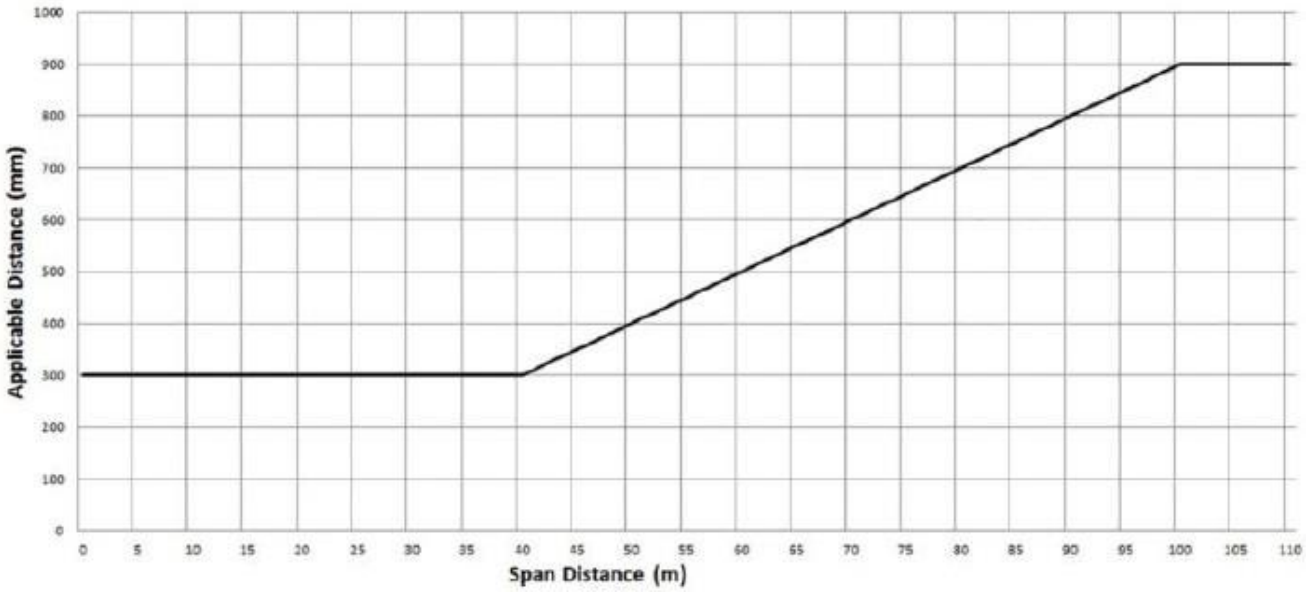
Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
Melaleuca ericifolia	Swamp Paperbark	E	N					•	
Melaleuca linarifolia	Snow in Summer	E	N					•	
Melaleuca styphelioides	Prickly-leaf Paperbark	E	N					•	
Melia azedarach	White Cedar	D	N	Small, broad tree with vivid green foliage and lilac flowers in late spring.	Fruit drop is a significant problem as it is a tripping hazard. However, there are now low fruiting cultivars available, such as 'Elite'.	•		•	
Nothofagus cunninghamii	Myrtle Beech	E	I		Ornamental tree for high rainfall areas. Does not tolerate dry conditions, particularly during establishment.			•	•
Pistachia chinensis	Chinese Pistachio	D	E	Extremely colourful autumn foliage turning from green to red.	Difficult to find specimens with one central leader and is therefore better used in public open spaces instead of streets.			•	
Platanus x acerifolia	London Plane	D	E	Very attractive mottled brown/grey bark. Large green leaves turning yellow in Autumn.	Avoid seedling stock because the form and branch attachment can vary significantly. There are various cultivars available such as 'Bloodgood', 'Columbia' and 'Liberty'. High tolerance to dry soil conditions and frost. Suitable for large streets/avenues.	•		•	
Platanus orientalis	Oriental Plane	D	E	Very attractive mottled brown/grey bark. Large green leaves turning yellow in Autumn.	Avoid seedling stock because the form and branch attachment can vary significantly. There are various cultivars available such as 'Autumn Glory'. High tolerance to dry soil conditions and frost. Suitable for large streets/avenues.	•		•	
Prunus cultivars	Flowering Plum	D	E	Most cultivars have spectacular flowers. Flowers range in colour from white, pink and red. Leaves and autumn colours vary significantly between cultivars.	Form of tree varies and can be upright, weeping, vase-shaped, etc. It is important to select cultivars that are less susceptible to leaf curl, canker and borer, which can affect some Plum trees. Popular cultivars include: 'Shirotae' (syn. 'Mt Fuji'), *Prunus fruticosa* 'Globosa', *Prunus cerasifera* 'Crimson Spire'.	•		•	
Pyrus calleryana cultivars	Callery Pear	D	E	Mass of beautiful white flowers in Spring. Gold to red, to burgundy foliage in Autumn.	There are many cultivars of varying sizes and habit including 'Aristocrat', 'Capital' and 'Chanticleer'. In general, Callery Pears tolerates a wide range of conditions including dry soils. However, they do have a tendency to lose limbs	•		•	

Tree Species				Characteristics of Species		Suitable Landscape Use or Location			
Species	Common Name(s)	Deciduous / Evergreen	Origin	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Streets	Under Powerlines	Parks and Gardens	Revegetation Areas
					in storm events particularly when they have heavy fruit set. Cultivars that are tolerant of windy conditions and have good branch attachment should be selected.				
Quercus coccinea	Scarlet Oak	D	E	Large, rounded tree with very vivid deep scarlet red foliage in Autumn.	Relatively tolerant of dry, gravelly/sandy soils with low organic matter.	•		•	
Quercus palustris	Pin Oak	D	E	Large Oak with deeply lobed green leaves that turn crimson in Autumn.	Trees hold onto leaves for extended period before falling and young trees may return foliage during winter. There are cultivars now available which defoliate early. They also tolerate sites that have extended wet periods during winter. They may require irrigation in summer months. There is a columnar cultivar available.	•		•	
Quercus rubra	Red Oak	D	E	Acorns/Dark brown bark. Red to golden brown foliage in Autumn.	Probably doesn't provide as much year-round interest as other species listed.	•		•	
Tilia cordata	Linden	D	E			•		•	
Tristianiopsis laurina	Kanooka	E	N	Fine brown bark that exfoliates to reveal smooth cream beneath.	Versatile tree that grows in a wide range of conditions. Responds well to pruning if required.	•		•	
Ulmus parvifolia	Chinese Elm	SD	E	Attractive mottled orange-brown peeling bark.	Rapidly growing tree that tolerates range of conditions. Trees can develop more than one dominant leader which can present problems. May require regular irrigation in summer.	•		•	
Waterhousea floribunda	Weeping Lillypilly	E	N					•	
Zelkova serrata 'Green Vase'	Zelkova	SD	E	Beautiful shade tree, with attractive bright green, serrated leaves. Attractive, smooth grey bark.	Highly adaptable to different soils. Doesn't tolerate very wet sites.	•		•	

APPENDIX 6: Applicable distance for middle 2 thirds of electric line span

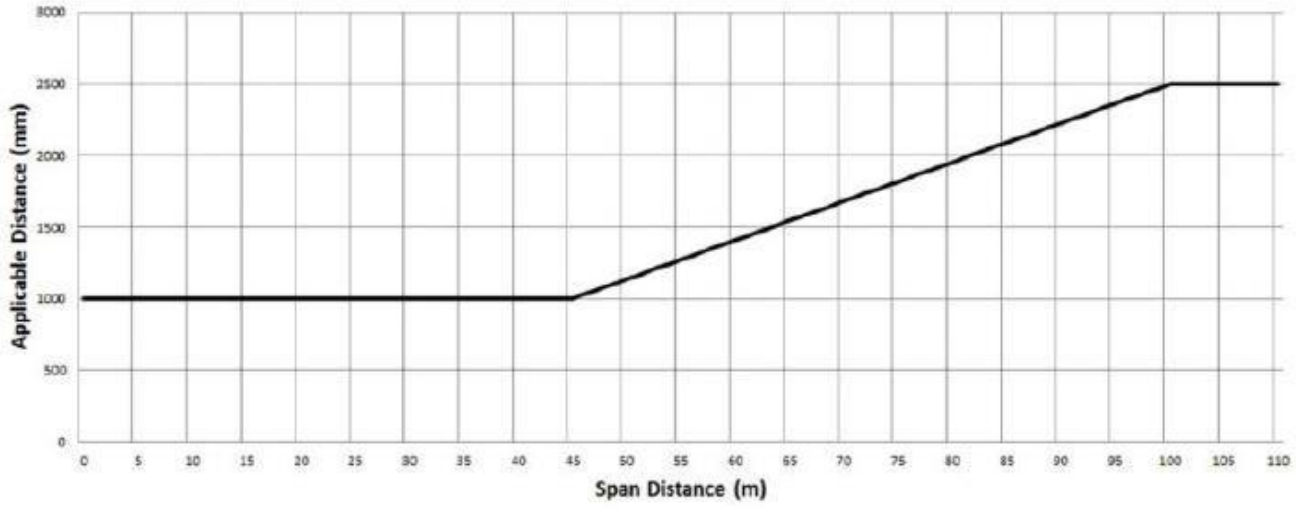
GRAPH 1—INSULATED ELECTRIC LINES IN ALL AREAS

(Extracts from Electrical Safety (Line Clearance) Regulations 2020)



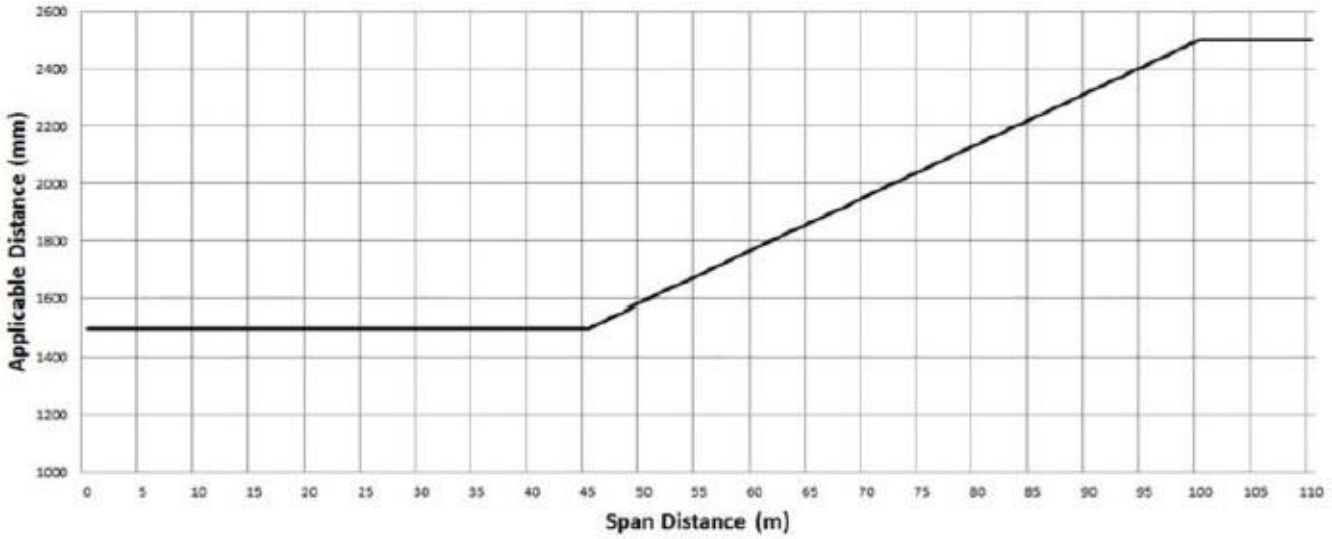
The formula by which the applicable distance for the middle two thirds of a span of an insulated electric line in all areas is calculated is as follows:
The applicable distance for the middle two thirds of the span is:
A. if the span distance is less than or equal to 40 m the applicable distance equals 300 mm
B. if the span distance is greater than 40 m and less than or equal to 100 m — the applicable distance is calculated in accordance with the following expression — 300 + [(span distance minus 40) multiplied by 10];
C. if the span distance is greater than 100 metres the applicable distance equals 900 mm.

GRAPH 2: UNINSULATED LOW VOLTAGE ELECTRIC LINE IN LOW BUSHFIRE RISK AREA



The formula by which the applicable distance for the middle two thirds of a span of uninsulated low voltage electric line in a low bushfire risk area is calculated is as follows
A if the span distance is less than or equal to 45 m the applicable distance equals 1000 mm
B. If the span distance is greater than 45 m and less than or equal to 100 m the applicable distance is calculated in accordance with the following expression: 1000 + [(span distance minus 45) multiplied by (1500 divided by 55)];
C. if the span distance is greater than 100 m the applicable distance equals 2500 mm.

GRAPH 3: UNINSULATED HIGH VOLTAGE ELECTRIC LINE (OTHER THAN A 66,000 VOLT ELECTRIC LINE) IN LOW BUSHFIRE RISK AREA



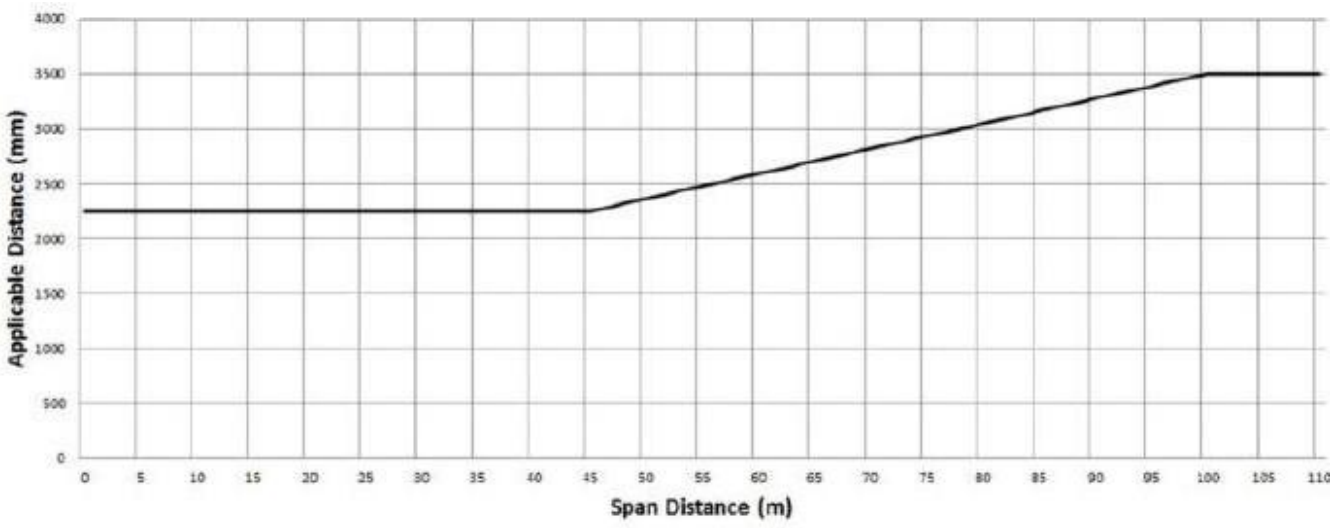
The formula by which the applicable distance for the middle two thirds of a span of uninsulated high voltage electric line (other than a 66,000-volt electric line) in a low bushfire risk area is calculated is as follows:

A. if the span distance is less than or equal to 45 m the applicable distance equals 1500 mm

B. if the span distance is greater than 45 m and less than or equal to 100 m, the applicable distance is calculated in accordance with the following expression 1500 + [(span distance minus 45) multiplied by (1000 divided by 55)]

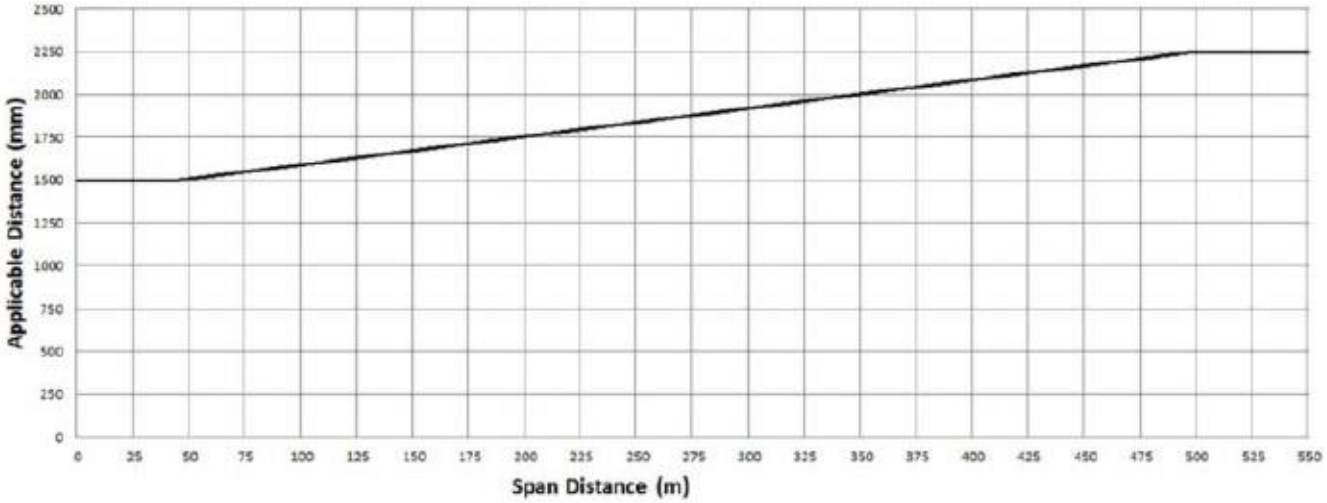
C. if the span distance is greater than 100 m the applicable distance equals 2500 mm.

GRAPH 4: UNINSULATED 66,000 VOLT ELECTRIC LINE IN LOW BUSHFIRE RISK AREA



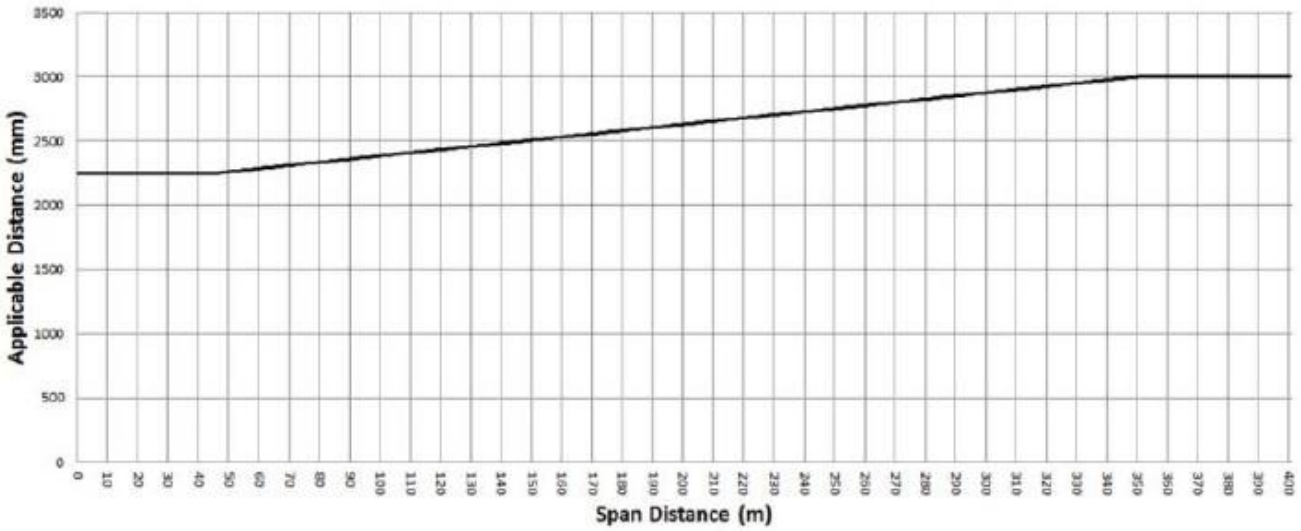
The formula by which the applicable distance for the middle two thirds of a span of uninsulated 66,000 volt electric line in a low bushfire risk area is calculated is as follows:
A. if the span distance is less than or equal to 45 m the applicable distance equals 2250 mm
B. if the span distance is greater than 45 m and less than or equal to 100 m the distance calculated in accordance with the following expression 2250 + [(span distance minus 45) multiplied by (1250 divided by 55)]; or C. if the span distance is greater than 100 m the applicable distance equals 3500 mm.

GRAPH 5: UNINSULATED LOW VOLTAGE AND HIGH VOLTAGE ELECTRIC LINE (OTHER THAN A 66,000 VOLT ELECTRIC LINE) IN HAZARDOUS BUSHFIRE RISK AREA



The formula by which the applicable distance for the middle two thirds of a span of an electric line is calculated is as follows:
A. if the span distance is less than or equal to 45 m the applicable distance equals 1500 mm
B. if the span distance is greater than 45 m and less than or equal to 500 m, the applicable distance is calculated in accordance with the following expression 1500 + [(span distance minus 45) multiplied by (500 divided by 303)]; or C. if the span distance is greater than 500 m the applicable distance equals 2250mm

GRAPH 6: UNINSULATED 66,000V ELECTRIC LINE IN HAZARDOUS BUSHFIRE RISK AREA



The formula by which the applicable distance for the middle two thirds of a span of an electric line is calculated is as follows:
A. if the span distance is less than or equal to 45 m the applicable distance equals 2250 mm
B. if the span distance is greater than 45 m and less than or equal to 350m, the applicable distance is calculated in accordance with the following expression 2250 + [(span distance minus 45) multiplied by (750 divided by 305)]; or C. if the span distance is greater than 350 m the applicable distance equals 3000mm

PLAN AND SECTION VIEW OF CLEARANCE SPACES FOR ALL AREAS PER ELECTRICITY SAFETY (ELECTRIC LINE CLEARANCE) REGULATIONS 2020

FIGURE 1 – PLAN VIEW OF ELECTRICAL LINES IN ALL AREAS

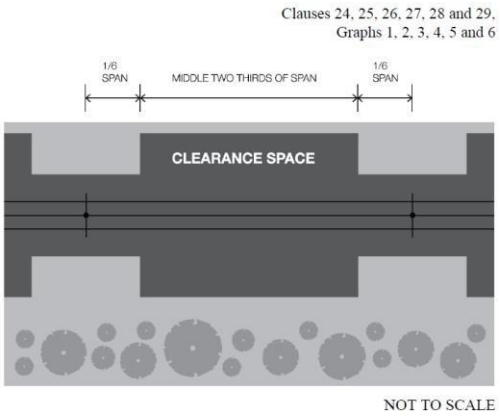


FIGURE 2 – INSULATED ELECTRICAL LINES IN ALL AREAS

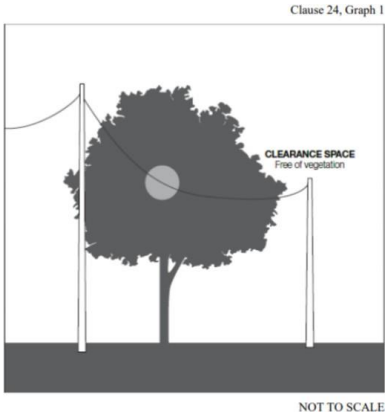


FIGURE 3 – INSULATED ELECTRICAL LINES IN ALL AREAS AND UNINSULATED HIGH VOLTAGE ELECTRICAL LINES (OTHER THAN 66 000 VOLTAGE ELECTRIC LINES) IN LOW BUSHFIRE RISK AREAS

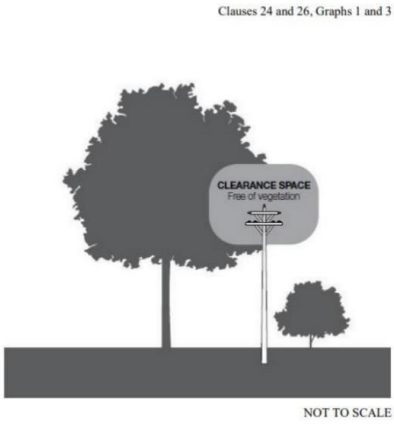


FIGURE 4 – UNINSULATED LOW VOLTAGE ELECTRICAL LINES IN LOW BUSHFIRE RISK AREAS

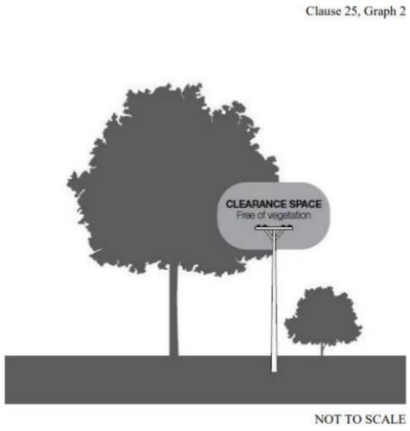


FIGURE 5 – UNINSULATED 66 000 VOLTAGE ELECTRICAL LINE IN A LOW BUSHFIRE RISK AREA AND UNINSULATED ELECTRIC LINE IN A HAZARDOUS BUSHFIRE RISK AREA